

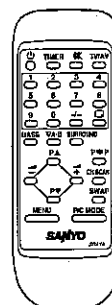
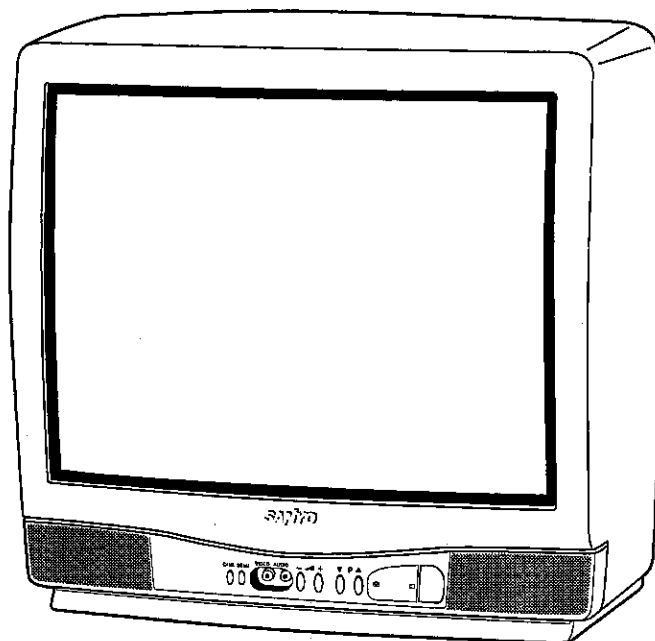
FILE NO.

SERVICE MANUAL Colour Television

Model No. CP21SW1Z

(Australia)

Service Ref. No. CP21SW1Z-00



Specifications

Power Source AC220-240V, 50Hz.
 Colour System PAL (AV input: PAL/NTSC4.43/NTSC/PAL-60Hz)
 Television System B/G
 Channel Coverage Australia
 VHF: 0-11, 5A
 UHF: 28-69
 CATV: S1-S41, X, Y, Z, Z+1, Z+2
 New Zealand
 VHF: 1-11
 UHF: 21-69
 CATV: S1-S41, X, Y, Z, Z+1, Z+2
 Video IF 38.0MHz
 Aerial Input Impedance .. 75Ω
 Ext. Terminals
 Video inputs: Phono jack × 2 (1Vp - p, 75Ω)
 Audio inputs: Phono jack × 2 (436mVrms, more than 40KΩ)
 Video monitor outputs: Phono jack × 1 (1Vp - p, 75Ω)
 Audio monitor outputs: Phono jack × 1 (436mVrms, less than 600Ω)
 Sound Output (RMS) 3W
 Speaker Front: 5cm × 9cm × 1 pc.
 Side: Diameter 8cm × 1 pc.
 Dimensions 509 (W) × 470 (H) × 479 (D)mm
 Weight approx. 21.5 Kg

Specifications subject to change without notice.

Product Code: 111350809

Original Version

Chassis Series: AC5-C

Give complete "SERVICE REF. NO." for parts order or servicing. It is shown on the rating plate at the cabinet back of the unit.

This T.V. receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specification table.

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Safety Notice

SAFETY PRECAUTIONS

- | | |
|--|--|
| 1: An isolation transformer should be connected in the power line between the receiver and the AC line when a service is performed on the primary of the converter transformer of the set. | 3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, isolation resistor-capacitor networks etc.. Before returning any television to the customer, the service technician must be sure that it is completely safe to operate without danger of electrical shock. |
| 2: Comply with all caution and safety-related notes provided on the cabinet back, inside the cabinet, on the chassis or the picture tube. | |

X-RADIATION PRECAUTION

The primary source of X-RADIATION in television receiver is the picture tube. The picture tube is specially constructed to limit X-RADIATION emissions. For continued X-RADIATION protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X - RADIATION. To avoid such hazards, the high voltage must be maintained within specified limit. Refer to this service manual, high voltage adjustment for specific high voltage limit. If high voltage exceeds specified limits, take necessary corrective action. Carefully follow the instructions for + B1 volt power supply adjustment, and high voltage check to maintain the high voltage within the specified limits.

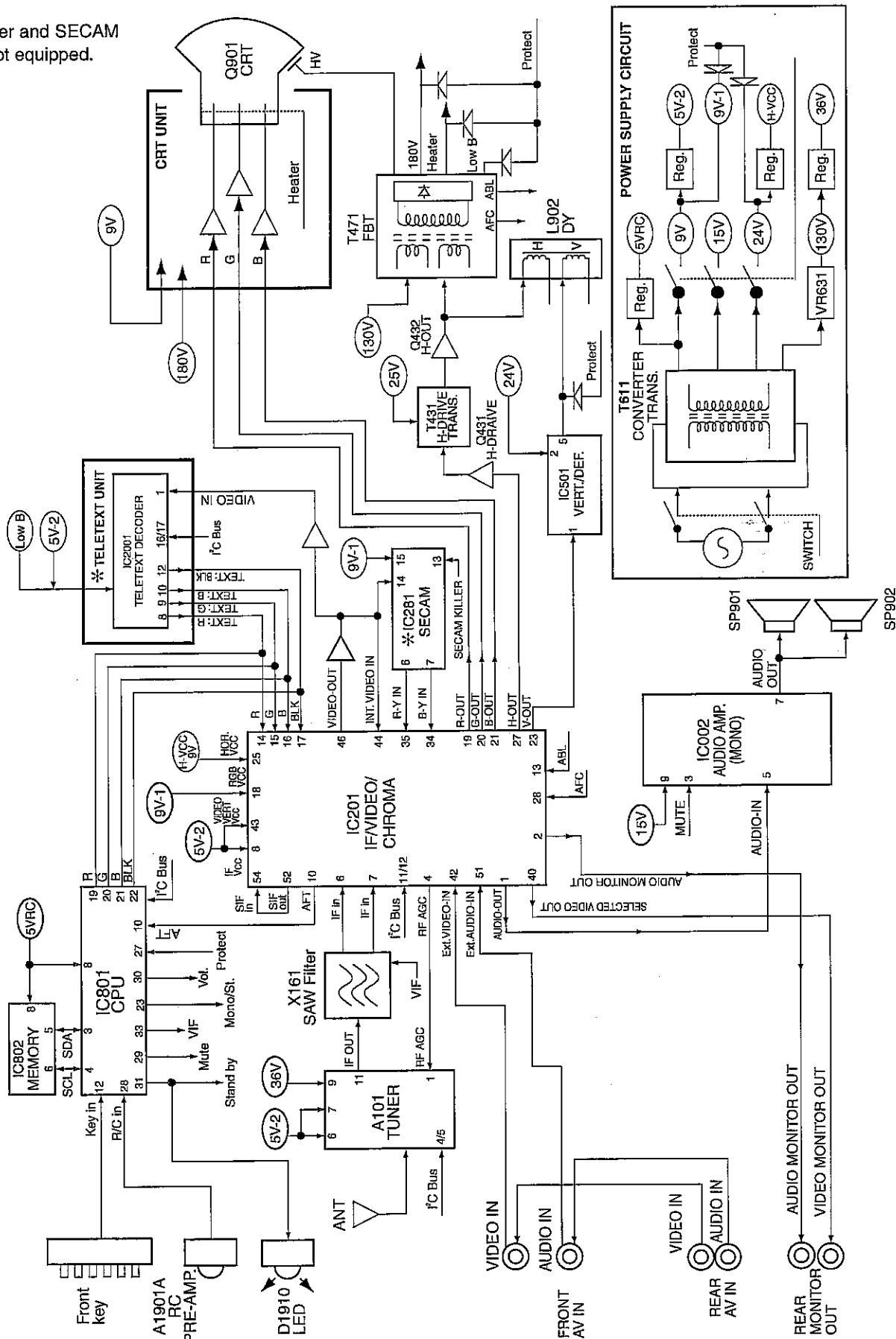
PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by mark $\triangle$ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is particularly recommended that only parts designated on the parts list in this manual be used for component replacement designated by mark $\triangle$. No deviations from resistance wattage or voltage ratings may be made for replacement items designated by mark $\triangle$.

Chassis Block Diagrams

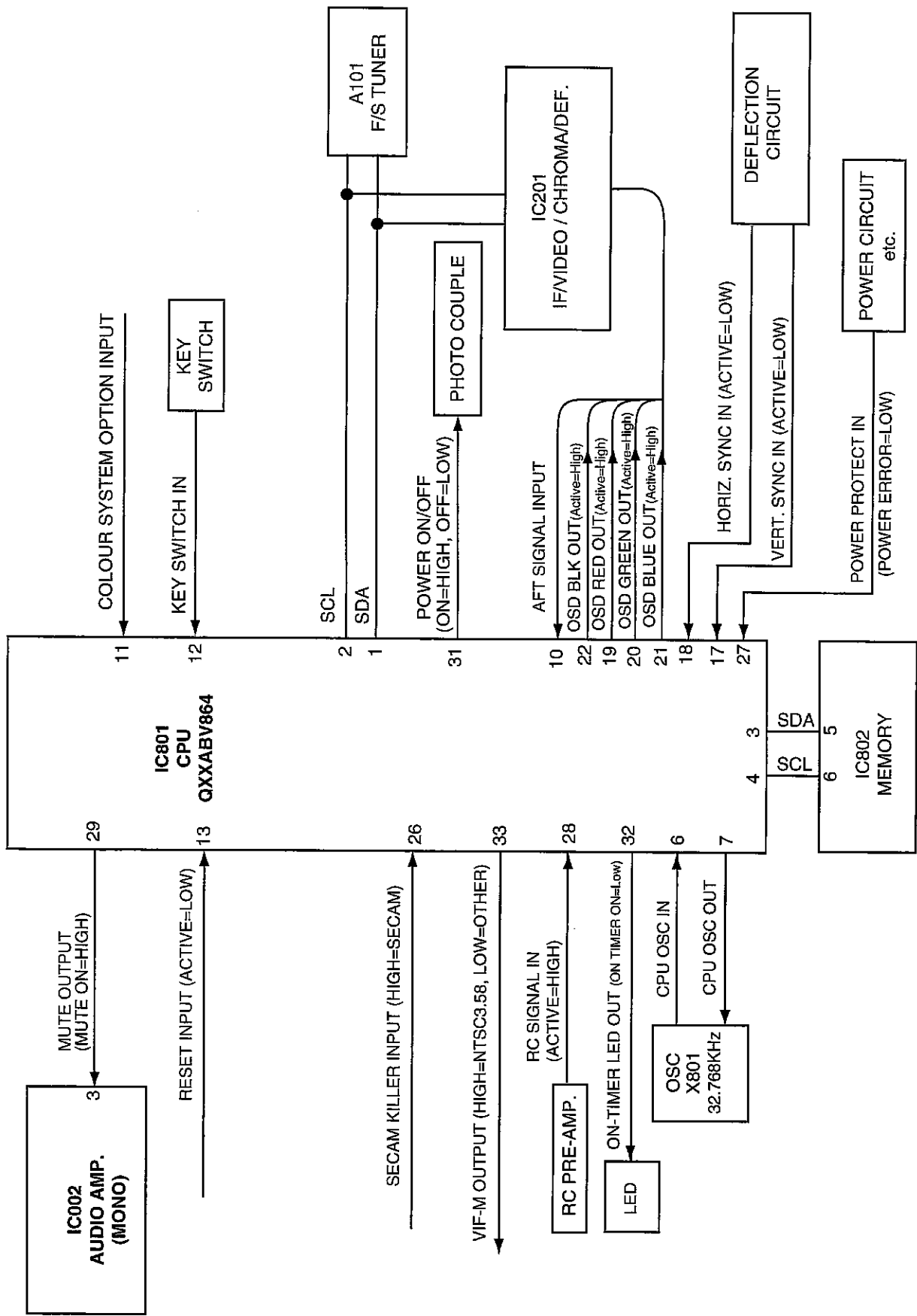
MAIN SIGNAL PROCESSING CIRCUIT

* Teletext decoder and SECAM decoder are not equipped.



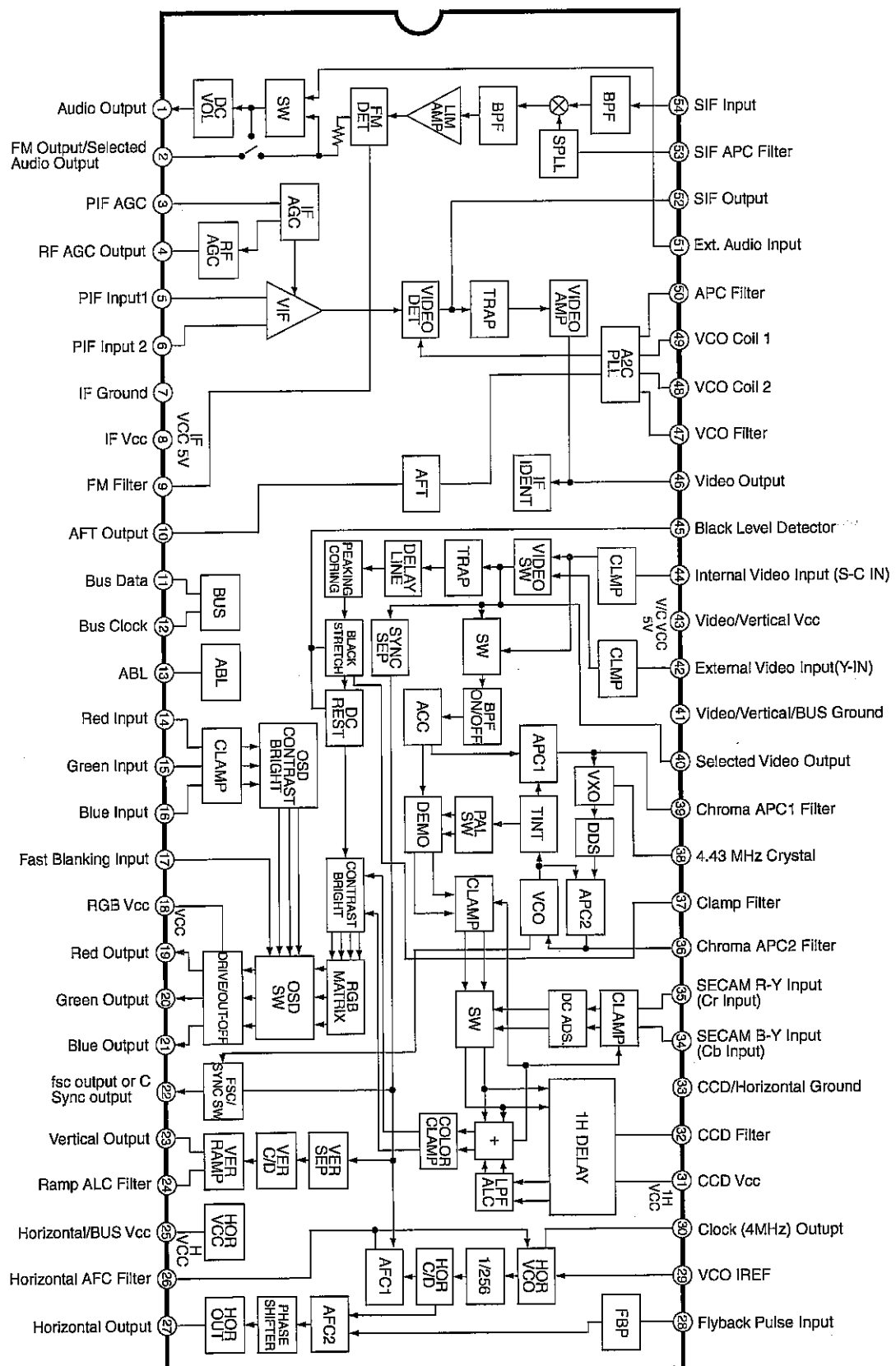
Chassis Block Diagrams

SYSTEM CONTROL



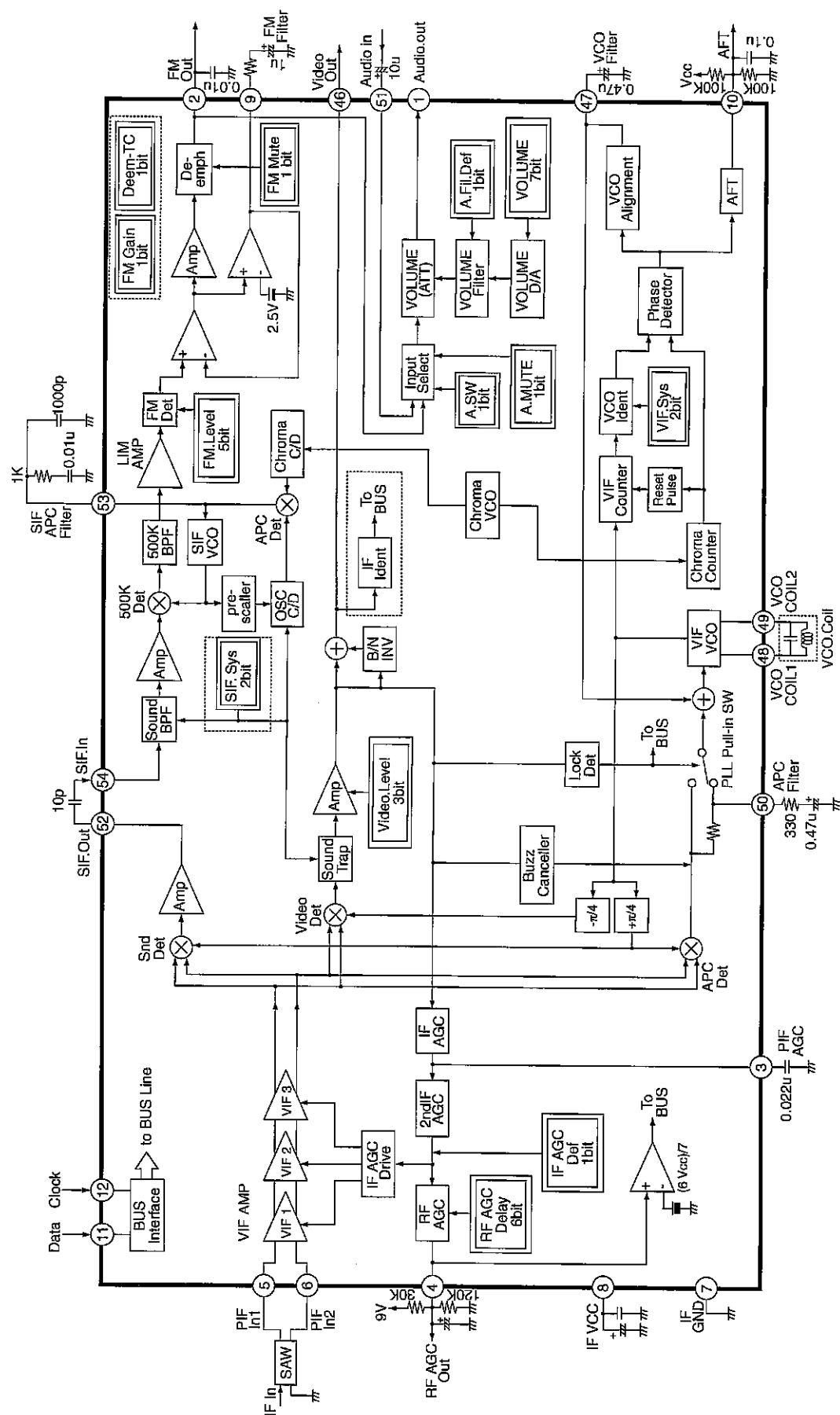
IC Block Diagrams

IC201 < IF/Video/Chroma/Def. > LA76818



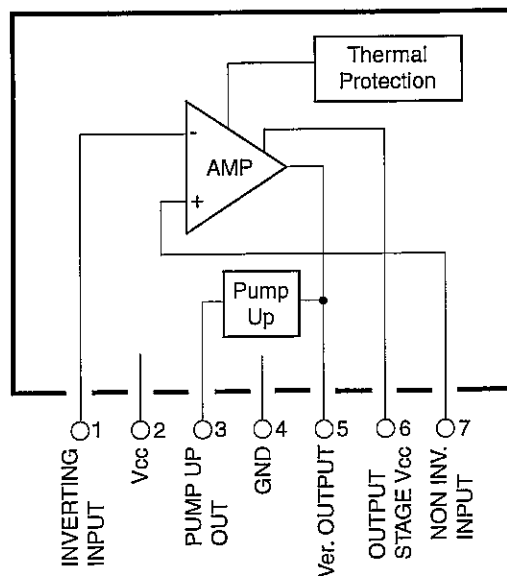
IC Block Diagrams

IC201 <IF System Block Diagram> LA76818

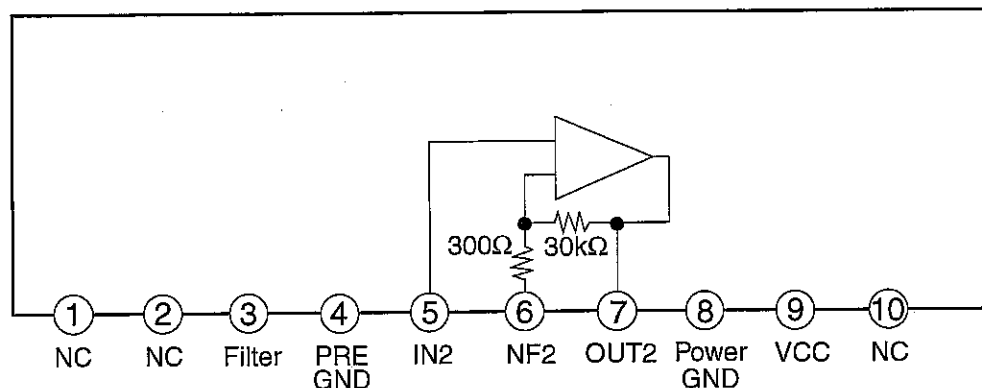


IC Block Diagrams

IC501 < Vertical Output > LA78040/TDA9302H



IC002 < Audio AMP.> LA4267



Service Information

■ Protection Circuit

This TV set has a built-in power supply protection circuit.

It is provided to protect the TV set in case of a power supply circuit malfunctions. When something abnormality occurs during TV reception, the TV set goes to the stand-by mode.

When an abnormality occurs during TV reception, it causes pin 27 of the CPU to go continually Low (less than 0.75V) for about one second. The CPU detects that this has occurred and outputs the signal from pin 31 to switch off the power supply lines.

Releasing the protective circuit and restoring power supply

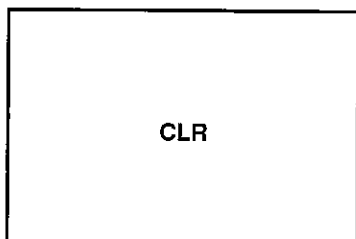
To release the protective circuit and restore power supply, turn the power to the TV set OFF and then ON again via either the main power switch or the ON-OFF button on the remote control. This will work only if the power supply trouble was temporary. If there is permanent trouble such as a damaged circuit, power cannot be restored and the circuit will have to be repaired.

Service Adjustments with Replacing Memory IC(IC802)

Note: The CPU (IC801) and memory IC (IC802) store the service adjustments data and controls data for each circuit. When the Memory IC (IC802) is replaced, some of the service adjustments should be readjusted to obtain the best performance. The necessary service adjustments are carried out by using the RC handset. Please set up the TV set with following steps [1] to [2].

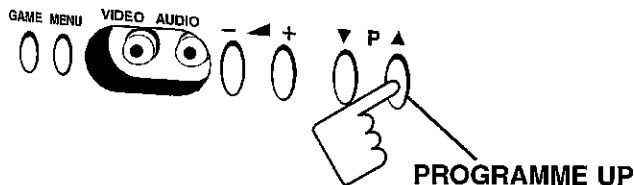
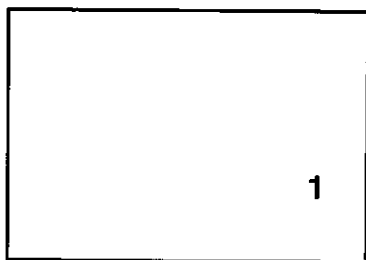
[1] Initializing Procedure

1. Put a new memory IC.
2. Turn on the TV set.
3. Press and hold the **GAME** button on the TV set for more than 2 seconds. The following picture appears on the screen.



Press and hold for more than 2 seconds

4. Press the **PROGRAMME UP** on the TV set while the above On-Screen Display is still on the screen. The following picture appears on the screen.



This completes the initialization of memory IC.

Following shows the initialized contents of memory data by this procedure.

- | | |
|---------------------|----------------|
| - Plug & Play | : No executed |
| - Inhibit Data | : Cancelled |
| - Ch Skip Data | : Cancelled |
| - Sound Volume Data | : 10/63 steps. |
| - Volume Lock | : OFF |
| - Tuning Lock | : OFF |
| - Music Mode | : OFF |
| - AV Start | : OFF |
| - Colour System | : AUTO |

Service Adjustments with Replacing Memory IC(IC802)

[2] Required Service Adjustments

Readjust the following service adjustments.

<u>Adjustments</u>	<u>Service Mode No. & Item</u>
RF AGC	Item 01, RF AGC
Horizontal centre	Item 02, H-PHA
Vertical size	Item 04, V-SIZ
Vertical-S correction	Item 05, V-SCO
Vertical linearity	Item 06, V-LIN
Gray scale	Item 14-17, 19-21

Further adjustment please refer to page 12 and 13.

Following table shows the initial values which have been stored in the CPU ROM, and items for the service adjustments.

Service mode adjustments table in CPU ROM

NO.	ITEM	DATA RANGE	INITIAL DATA	DESCRIPTION
01	RF AGC	00~63	30	RF AGC Adj.
02	H-PHA	00~31	5	H-Phase (H-Centering) Adj. (50Hz)
03	V-POS	00~63	40	V-Position (V-Centering) Adj. (50Hz) Fixed.
04	V-SIZ	00~127	69	V-Size Adj. (50Hz)
05	V-SCO	00~31	15	V-S Correction (50Hz)
06	V-LIN	00~31	19	V-Linearity Adj. (50Hz)
07	H-P60	-80~+70	+5	H-Centering Adj. (60Hz)
08	V-S60	-32~+31	0	V-Size Adj. (60Hz)
09	OSDHP	00~255	29	OSD H-Position Adj.
10	OSDC	00~127	45	OSD Contrast Adj.
11	V-SCP	00~07	7	Correction of the V-size accompanying brightness change.
12	H-SCP	00~07	7	Correction of the H-size accompanying brightness change.
13	SBIAS	00~127	105	Sub Bias Adj. (Do not change)
14	RBIAS	00~255	0	Red Bias Adj.
15	GBIAS	00~255	0	Green Bias Adj.
16	BBIAS	00~255	0	Blue Bias Adj.
17	RDRIV	00~127	64	Red Drive Adj.
18	GDRIV	00~15	8	Green Drive Adj.
19	BDRIV	00~127	64	Blue Drive Adj.
20	1-LINE APPEAR			
21	DRV			White Balance Adj.
22	B-YD	00~15	10	B-Y DC level Adj.. Colour compensation (PAL)
23	R-YD	00~15	10	R-Y DC level Adj.. Colour compensation (PAL)
24	B-YDN	-08~+07	0	NTSC B-Y DC level Adj. (Difference value over PAL.)
25	R-YDN	-08~+07	0	NTSC R-Y DC level Adj. (Difference value over PAL.)
26	SBDC	-08~+07	-8	SECAM B-Y DC level Adj. (Difference value over PAL.)
27	SRDC	-08~+07	-5	SECAM R-Y DC level Adj. (Difference value over PAL.)
28	G-YA	0,1	0	G-Y angle Adj. (The reproducibility of a colour is changed.)
29	RBGB	00~15	8	R-Y, B-Y Gain Balance Adj. (Do not change.)
30	RBAG	00~15	8	R-Y, B-Y Angle Adj. (Do not change.)
31	G-YAN	0,1	0	NTSC G-Y Angle Adj. (Difference value over PAL.)
32	RBGBN	-08~+07	0	NTSC R-Y, B-Y Gain Balance Adj. (Difference value over PAL.)
33	RBAGN	-08~+07	0	NTSC G-Y, B-Y Angle Adj. (Difference value over PAL.)
34	COGV	00~03	0	Coring Adj.
35	BLKS	00~03	3	Setting of Black stretch start.
36	BLKG	00~03	3	Setting of Black stretch gain.
37	BRTA	0,1	0	On and off of ABL.
38	BRST	0,1	0	Setting of ABL.
39	BRTH	00~07	0	Setting of ABL.
40	WPL	00~03	2	White peak limiter.
41	YGAM	00~03	0	Y Gamma setting.
42	PORW	0,1	0	Switching of Pre-shoot and Over shoot in AV mode.
43	PORS	00~03	2	Pre-shoot/Over shoot Adj. in AV mode.
44	RFCO	00~03	0	RF Coring Gain Adj.

Service Adjustments with Replacing Memory IC(IC802)

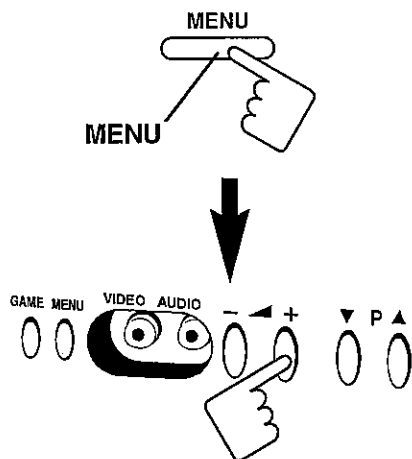
NO.	ITEM	DATA RANGE	INITIAL DATA	DESCRIPTION
45	PORWN	0,1	0	Switching of RF Pre-shoot and Over shoot.
46	PORSN	00~03	0	RF Pre-shoot/Over shoot Adj.
47	TINT	-16~+15	0	RF Tint Adj.
48	TINT 443	-16~+15	-12	NTSC 4.43 Tint Adj.
49	SHRF	-32~+31	0	RF Sharpness Adj.
50	TEXTC	-128~+127	0	OSD TEXT Contrast.
51	VOLUM	00~255	127	Volume Control Adj.
52	DEEM	0,1	0	De emphasis TC.
53	VIFSW	00~03	0	VIF System Switch.
54	SIFSW	00~03	1	SIF System Switch.
55	V-LVL	00~07	4	Video Level Adj.
56	FMLVL	00~31	16	FM Level Adj.
57	IF-TE	0,1	0	IF Test.
58	IF-T1	0,1	1	IF Test-1.
59	IF-T2	0,1	1	IF Test-2
60	IF-T3	00~255	136	IF Test-3
61	H-FRQ	00~63	34	Correction of Horizontal Frequency.
62	FBTS	0,1	0	Switching of H-blanking and Flyback Pulse.
63	COOP	00~07	7	Setting of Colour Killer Level.
64	HBLKL	00~07	7	H-Blanking Control. (Left)
65	HBLKR	00~07	3	H-Blanking Control. (Right)
66	AFCRF	0,1	0	RF AFC Gain & Gate Adj.
67	VSURF	0,1	0	RF V-Sync. Separation Adj.
68	CDMRF	00~07	0	RF V-Countdown Circuit Adj.
69	AFCAV	0,1	1	AV AFC Gain & Gate Adj.
70	VSUAV	0,1	0	AV V-Sync. Separation Adj.
71	CDMAV	00~07	0	AV V-Countdown Circuit Adj.
72	HLVDRF	0,1	1	Incorrect operation prevention at the time of a special signal (RF mode)
73	HLVDAV	0,1	1	Incorrect operation prevention at the time of a special signal (AV mode)
74	VCO-SW	0,1	0	C-VCO Adj. Switch.
75	VCO-ADJ	00~03	3	C-VCO Adj.
76	CROSS-BW	00~03	0	Pattern Output.
77	AVNCON	00~127	64	Contrast Adj. of the blue back in AV mode.
78	AVNBRI	00~127	64	Brightness Adj. of the blue back in AV mode.
79	POMT	00~255	25	Power Mute Time Adj.
80	CHMT	00~255	10	Channel Change Mute time Adj.
81	SYST	00~15	5	Selection of the number of times of a Colour system judgment.
82	S-STE	0,1	1	Stereo/Mono Option.
83	VOLTBL	00~03	0	Selection of the change characteristic of volume.
84	CHIP818	0,1	0	Option of 818(1:TINT Control reversal)/828(2:TINT through control) selection.
300	R00	00~255	112	CPU Debug Date.
301	R01	00~255	64	CPU Debug Date.
302	R02	00~255	0	CPU Debug Date.
303	R03	00~255	0	CPU Debug Date.
304	R04	00~255	1	CPU Debug Date.
305	R05	00~255	0	CPU Debug Date.
306	R06	00~255	0	CPU Debug Date.
307	R07	00~255	0	CPU Debug Date.
308	R08	00~255	33	CPU Debug Date.
309	R09	00~255	112	CPU Debug Date.
310	R10	00~255	68	CPU Debug Date.
311	R11	00~255	0	CPU Debug Date.
371	R71	00~255	0	CPU Debug Date.
372	R72	00~255	177	CPU Debug Date.

Notes: The initial value that the CPU writes down the CPU ROM data to the memory when replaced the memory IC. TV set may not operate correctly with this initial value. It is required to set up the fine adjustment for service adjustments described in the above.

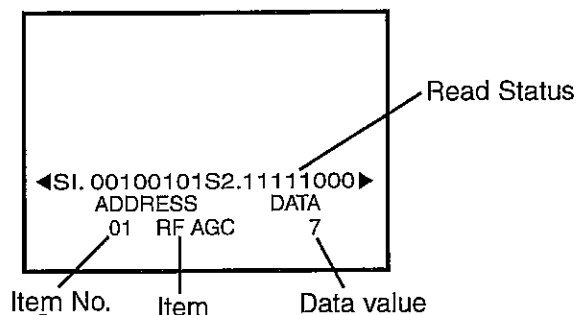
Service Adjustments with Replacing Memory IC(IC802)

[Entering to Service Mode]

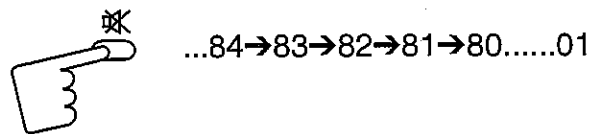
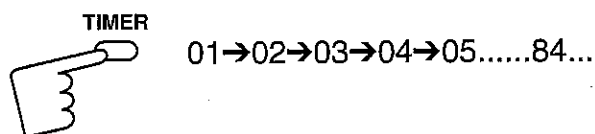
1. Press and hold the **MENU** button on the Remote Control and press the **VOLUME (+)** button on the TV set.
Following setting items appears on the screen.



Display for [RF AGC] RF AGC adjustment

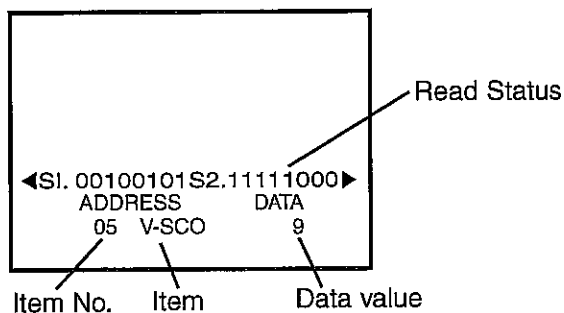


2. Select item by pressing the **TIMER** (Item No. UP) or **SOUND MUTE** (Item No. DOWN) button on the remote control handset.

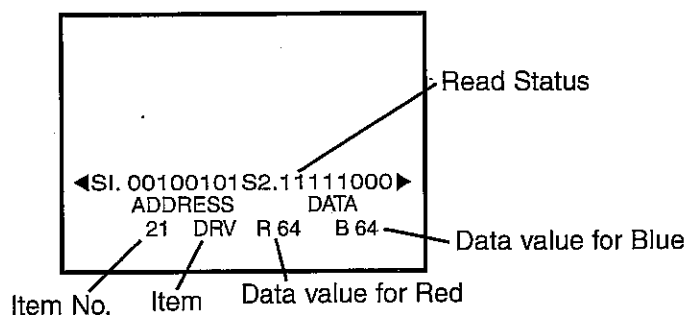


Example

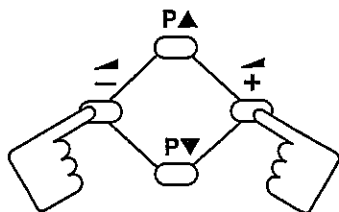
Display for [V-SCO] V-S Correction adjustment



Display for [DRV] White balance adjustment



3. Adjust data value by pressing the **VOLUME +** or **VOLUME -** button on the remote control handset.



To return to normal TV mode, press the **MENU** button on the TV set or the remote control handset.

Service Mode Adjustments

Following adjustments should be carried out when the memory IC is replaced. How to enter the service mode and adjust values, please refer to "Entering to Service mode" on page 11.

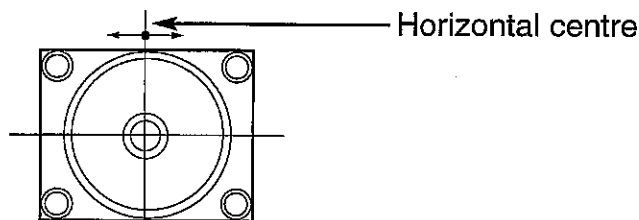
Item 01 [RF AGC] AGC

NOTE: Do not attempt this adjustment with weak signal.

- (1) Tune the receiver to most clearest (or strongest) VHF station in your area. Set the brightness and contrast controls to maximum. Set the colour control to minimum.
- (2) Select [RF AGC] in the service mode.
- (3) Change value until the snow noise just disappears.
- (4) Exit from service mode.

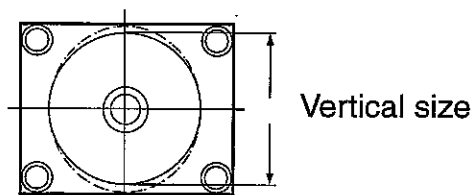
Item 02 [H-PHA] HORIZONTAL CENTRE

- (1) Receive the monochrome circular pattern.
- (2) Set the brightness and contrast to normal.
- (3) Select [H-PHA] in the service mode.
- (4) Change value to be optimum horizontal centre position.
- (5) Exit from service mode.



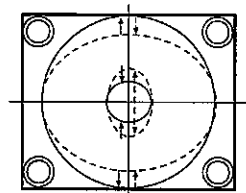
Item 04 [V-SIZ] VERTICAL SIZE

- (1) Receive the monochrome circular pattern.
- (2) Set the brightness and contrast to maximum.
- (3) Select [V-SIZ] in the service mode.
- (4) Change value to be optimum vertical size.
- (5) Exit from service mode.



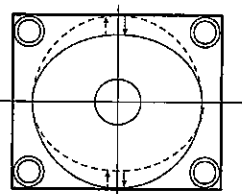
Item 05 [V-SCO] V-S CORRECTION

- (1) Receive the monochrome circular pattern.
- (2) Select [V-SCO] in the service mode.
- (3) Adjust V-S CORRECTION by pressing VOLUME + or - button.
- (4) Exit from service mode.



Item 06 [V-LIN] VERTICAL LINEARITY

- (1) Receive the monochrome circular pattern.
- (2) Select [V-LIN] in the service mode.
- (3) Adjust vertical linearity by pressing VOLUME + or - button.
- (4) Exit from service mode.

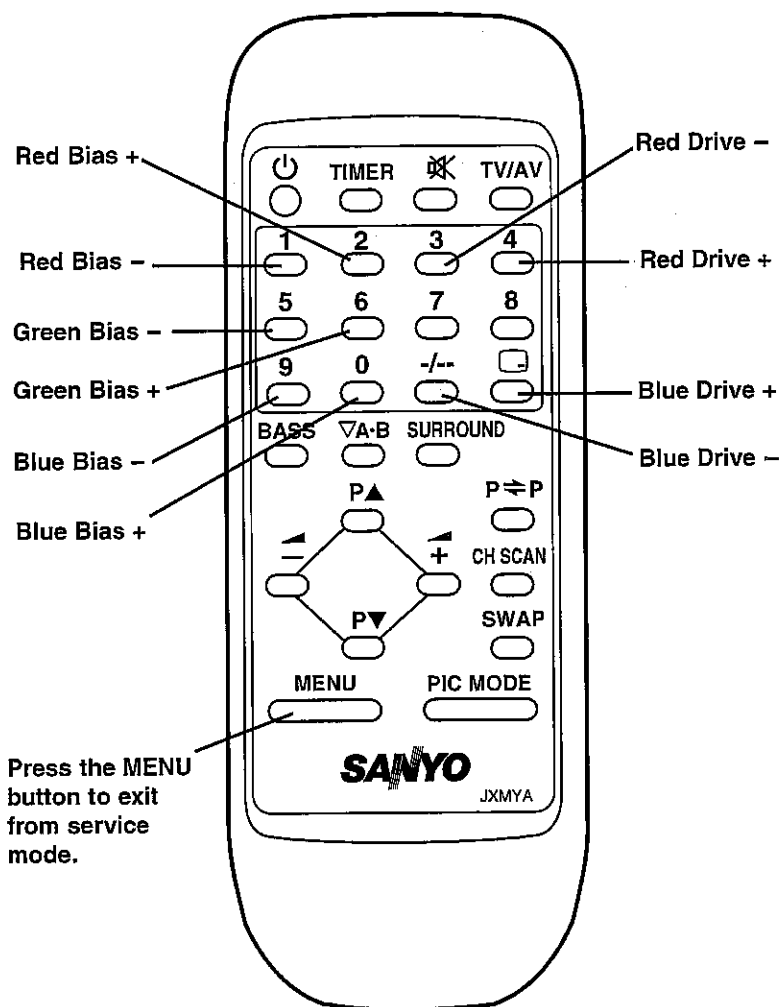


Service Mode Adjustments

Items 14-17, 19-21 GREY SCALE

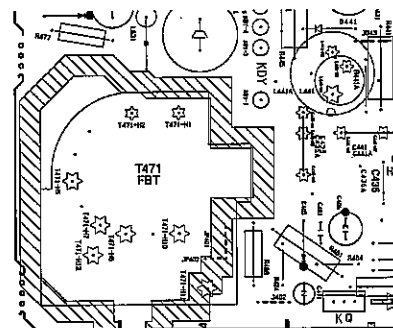
- (1) Receive the monochrome circular pattern.
- (2) Set the brightness and colour to normal, contrast to maximum.
- (3) Enter to the service mode.
- (4) Set each value of Item-14 **RBIAS**, 15 **GBIAS**, 16 **BBIAS**, 17 **RDRIV** and 19 **BDRIV** mode to 64.
- (5) Select Item-20 mode to be one horizontal scanning line and turn the screen volume on the FBT to obtain just visible one coloured line.
- (6) Press the 1 (**Red Bias -**), 2 (**Red Bias +**), 5 (**Green Bias -**), 6 (**Green Bias +**), 9 (**Blue Bias -**) or 0 (**Blue Bias +**) **button** to adjust the brightness of each colour until a dim white line produced. Please see the control button allocations in this mode.
- (7) Select Item-21 **DRV** mode to enter the white balance adjusting mode.
- (8) Press the 3 (**Red Drive -**), 4 (**Red Drive +**), -/-- (**Blue Drive -**) or **RECALL** (**Blue Drive +**) **button** alternately to produce normal black and white picture.
- (9) Exit from the service mode.
- (10) Check for proper grey scale tracking at all brightness levels.

NOTE: If the grey scale adjustment is made after picture tube replacement, check the high voltage.



Press the MENU button to exit from service mode.

MAIN BOARD



SCREEN VR
(Under side)

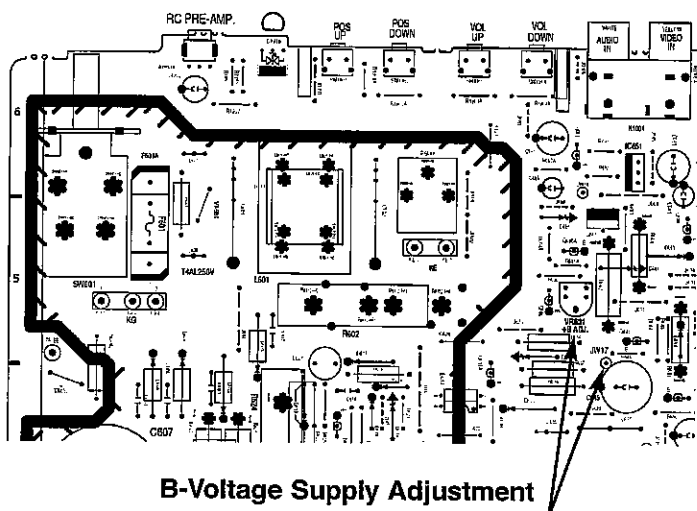
Service Adjustments

Following adjustments are not required to readjust when replacing the memory IC.

B-VOLTAGE SUPPLY CHECKING

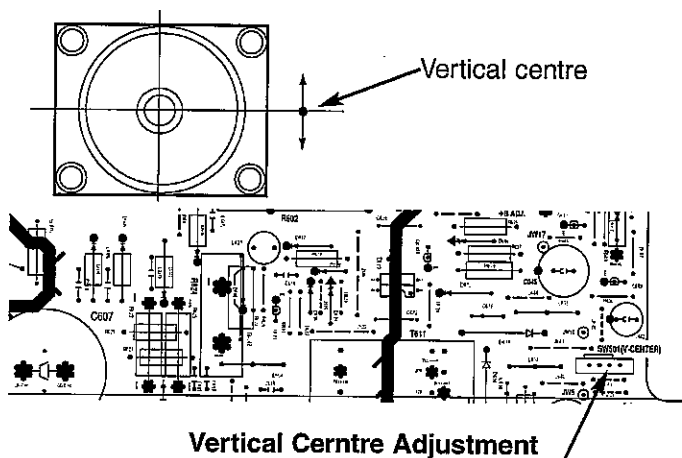
- (1) Connect DC meter to JW17 and the ground.
- (2) Tune the receiver to an active channel and synchronized picture. Select NATURAL picture mode by pressing the **PICTURE MODE** button on the remote control.
- (3) Adjust B-voltage to be $130 \pm 1V$ DC by using VR631.

MAIN BOARD



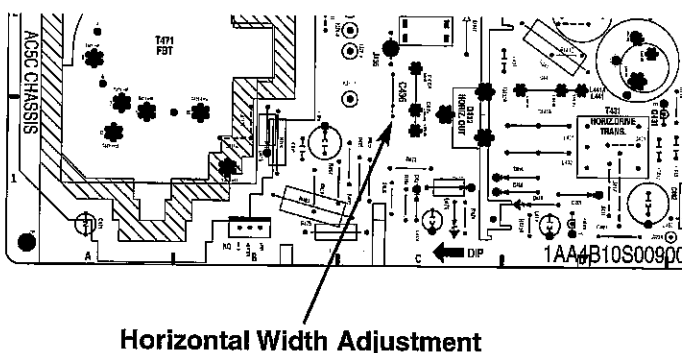
VERTICAL CENTRE

- (1) Receive the monochrome circular pattern.
- (2) Set the brightness and contrast to maximum.
- (3) Adjust the vertical centre of the picture with SW501.



HORIZ. WIDTH ADJUSTMENT

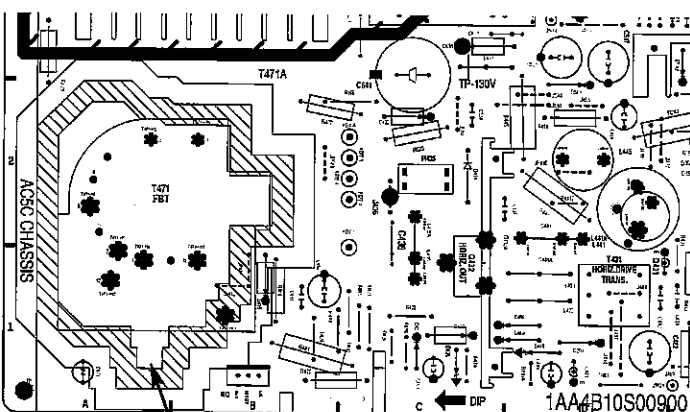
- (1) Receive the monochrome circular pattern.
- (2) Set the brightness and contrast to maximum.
- (3) If the picture is too wide, remove "C436" on the main unit.



FOCUS ADJUSTMENT

- (1) Receive the monochrome circular pattern.
- (2) Set the brightness to normal and contrast to maximum.
- (3) Adjust the focus control on the F.B.T. for the best focus on the screen centre.

MAIN BOARD



HIGH VOLTAGE CHECK

- (1) Connect a high voltage probe to anode lead of the picture tube.
- (2) Receive a monochrome circular pattern.
- (3) Set the brightness and contrast to maximum.
The high voltage must be $25KV \pm 1KV$.
- (4) Set the brightness and contrast to minimum (0 beam current).
The high voltage must be less than $27.5KV$.

NOTE:

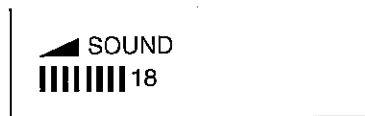
If the picture tube is replaced, check the high voltage.

Special Function

The following special functions can be set up on this TV set.

(1) Volume Lock setting

With this function, a maximum sound volume limit can be set at any level.



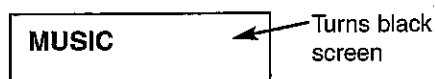
(2) Tuning Lock setting

Once TUNING LOCK is switched on, further channel tuning (Pre-set) is not possible. The Channel Swapping function also is not possible.



(3) Music Mode setting

When Music Mode is ON, Programme position from "91" to "99" and "0" are set Music Mode. Only sound is provided and any picture is not on the screen under Music Mode.



(4) AV Start setting

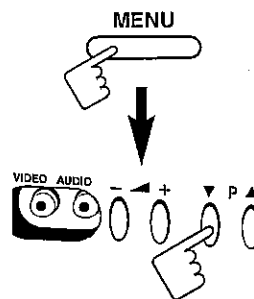
Set AV-START to ON and every time the TV set is switched on, AV position will be the initial programme position.



How to set the special function:

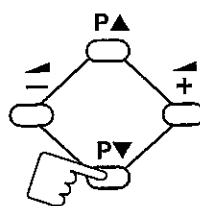
Note: When making the VOLUME LOCK setting, set the desired maximum sound volume by pressing the **VOLUME +** or **-** button before entering Special Function setting mode.

- 1 To enter into the special function setting mode, press and hold the **MENU** button of the remote control, then press the **PROGRAMME DOWN** button on the TV set.



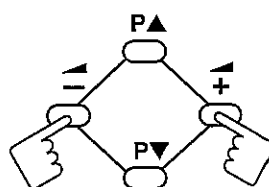
VOLUME LOCK	OFF
TUNING LOCK	OFF
MUSIC MODE	OFF
AV START	OFF
SELECT ADJUST EXIT	

- 2 Select an item of the special functions by pressing the **PROGRAMME UP** or **DOWN** button on the remote control or the TV set.



VOLUME LOCK	OFF
TUNING LOCK	OFF
MUSIC MODE	OFF
AV START	OFF
SELECT ADJUST EXIT	

- 3 Set the selected special function "ON" by pressing the **VOLUME +** or **-** button. To cancel, set to "OFF".



VOLUME LOCK	OFF
TUNING LOCK	ON
MUSIC MODE	OFF
AV START	OFF
SELECT ADJUST EXIT	

- 4 Press the **MENU** button of the remote control to return to the normal TV mode.



Purity and Convergence Adjustment

CAUTION: The Convergence and Purity adjustments have been made at the factory. Readjustment should be made only after picture tube or deflection yoke replacement, following the steps below:

PURITY ADJUSTMENT

1. Demagnetize the picture tube and receiver using an external degaussing coil. When replacing picture tube or deflection yoke, mount deflection yoke and purity-convergence magnets assembly properly, see figures 1 and 4.
2. Turn Red and Blue guns off and provide only Green raster. Rotate Screen control to fully counterclockwise. Rotate Red and Blue Bias controls fully counterclockwise. Slowly rotate Green Bias control clockwise to produce Green raster.
3. Loosen the screw holding the Deflection Yoke and remove the 3 Rubber Wedges, and slide the Deflection Yoke fully forward.
4. Rotate and spread the Tabs of the two Purity Magnets to centre the vertical green belt in the picture screen. The Purity Magnets are also adjusted to obtain vertical centring of the raster.
5. Slowly slide the Deflection Yoke backward until a uniform green screen is obtained.
6. Check the purity of the red and blue screens for uniformity, turn off other colours to check this (use bias controls). Readjust the yoke position if necessary until all screens are pure.
7. Adjust each Bias control and screen control to obtain white raster. Refer to Gray Scale Adjustment. If part of the picture screen is coloured, adjust the Deflection Yoke position forward or backward slightly.

8. Tighten the mounting screw of the Deflection Yoke. Adjust Convergence next.

CENTRE CONVERGENCE ADJUSTMENT

1. Use a dot crosshatch pattern signal.
2. Turn Red and Blue guns on and turn off Green gun. Adjust the angle between the Tabs of the Four Pole Magnet 1 and 2, and superimpose the Red and Blue vertical lines in the centre area of the picture screen. Refer to figure 2.
3. Keeping the mutual angle of the Tabs of the Four Pole Magnet turn them together to superimpose the Blue and Red horizontal lines in the centre area of the picture screen. Refer to figure 2.
4. Turn Green gun on and adjust Six Pole Magnet 3 and 4 that the Green line superimposed on the Red/Blue lines. This is the same procedure used in steps 2 and 3. Refer to figure 3.

OUTER AREA CONVERGENCE ADJUSTMENT

Slightly loosen the screw holding the Deflection Yoke. Adjust the Deflection Yoke to converge the detail in the outer area (left side and right side) of the picture screen by orbital movement of the front of the Yoke, then secure the Deflection Yoke in appropriate position by putting the wedges as illustrated. Tighten screw holding the Deflection Yoke.

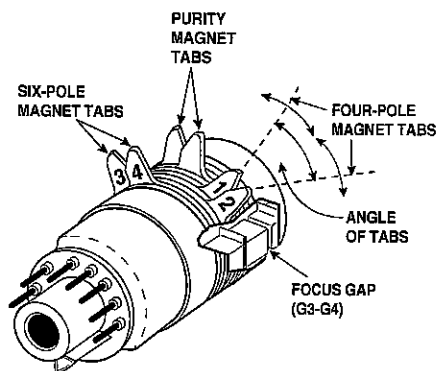


Figure 1. Purity and Convergence Magnets

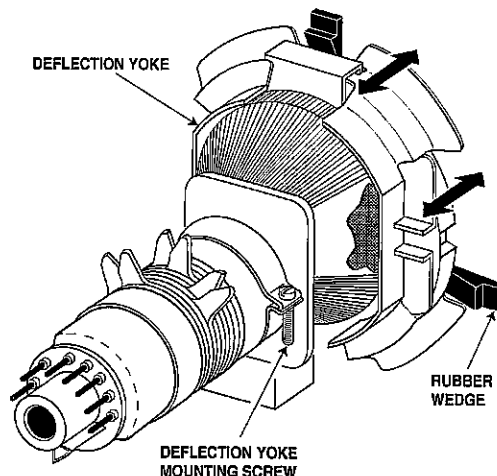


Figure 4. Deflection Yoke Movement

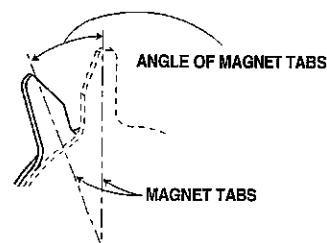


Figure 5. Adjusting Magnet

Adjust tabs angle to superimpose blue and red vertical line.

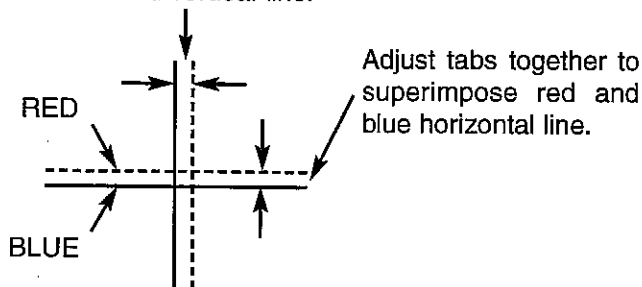


Figure- 2 BLUE AND RED LINE MOVEMENT

Adjust tabs angle to superimpose red/blue and green vertical line.

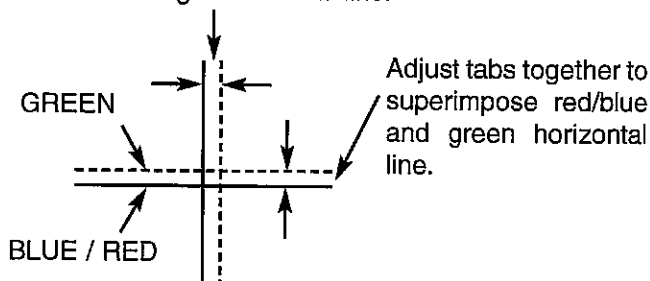
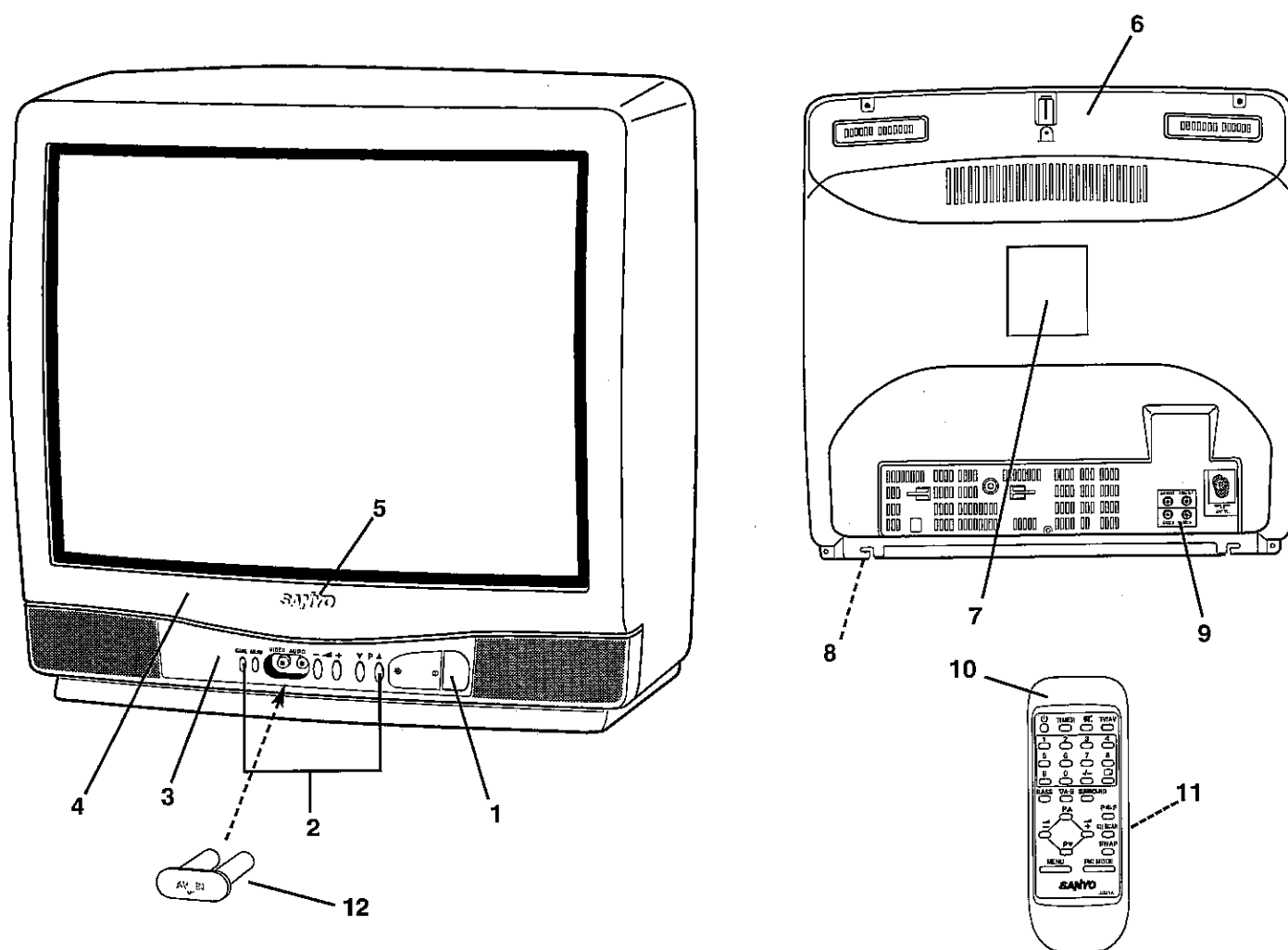


Figure- 3 BLUE/RED AND GREEN MOVEMENT

Cabinet Parts List

F8VK

Note: Parts order must contain Service Ref. No., Part No., and descriptions.



Key No.	Part No.	Description	Key No.	Part No.	Description
1	610 265 6381	BUTTON POWER-E8VA			
	610 229 8406	SPRING-E3HA			
2	610 282 6838	BUTTON UNITED-F8VY			
3	610 292 3155	DEC SHEET-F8VV			
4	610 301 8966	ASSY, CABINET FR-F8VK			
5	645 023 4316	BADGE, SANYO			
6	610 265 6367	CABINET BACK-E8VA			
7	610 299 7774	LABEL RATING-F8VK			
8	610 256 7670	HOLDER AC CORD-SGP-D4VA			
9	610 300 7861	DEC SHEET REAR-F8SK			
10	645 054 3579	ASSY, REMOCON JXMYA			
11	610 300 5102	RC-BATTERY LID-JXMYA			
12	610 282 6890	DEC CAP-F8VY			
	610 299 3776	INSTRUCTIONS MANUAL-C5SY			

Chassis Electrical Parts List

F8VK

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a Δ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

Note: Parts order must contain Service Ref. No., Part No., and descriptions. The main PCB unit will be supplied without tuner and flyback transformer. They should be ordered separately.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
NOTES: Read description in the Capacitor and Resistor as follows:			OUT OF CIRCUIT BOARD		
CAPACITOR			PICTURE TUBE		
CERAMIC	100P	K 50V	△ Q901	414 010 5502	CRT A51QAE320X (N)
		Rated Voltage	COIL		
		Tolerance Symbols:	△ L901	645 028 3130	COIL,DEGAUSSING
		Less than 10pF		645 046 1705	COIL,DEGAUSSING
		A : Not specified B : ±0.1pF C : ±0.25pF	△ L902	645 038 3885	YOKE,DEFLECTION
		D : ±0.5pF F : ±1PF G : ±2pF			
		R : ±0.25-0pF S : ±0-0.25pF E : +0-1pF	MISCELLANEOUS		
		More than 10pF	SP901	645 039 1835	SPEAKER, 8
		A : Not specified B : ±0.1% C : ±0.25%		652 001 0789	SPEAKER, 8
		D : ±0.5% F : ±1% G : ±2%	SP902	645 005 6536	SPEAKER, 8
		H : ±3% J : ±5% K : ±10%	△ W901	645 009 9991	CORD, POWER
		L : ±15% M : ±20% N : ±30%		645 048 2106	CORD, POWER
		P : +100-0% Q : +30-10% T : +50-10%	W902	610 272 4479	GROUNDING CONNECTOR F6VC
		U : +75-10% V : +20-10% W : +100-10%		610 281 5184	ASSY,WIRE GND CONNECTOR F
		X : +40-20% Y : +150-10% Z : +80-20%			
		Rated value: P=pico farad, U=micro farad			
Material:			610 302 7029 ASSY,PWB,MAIN F8VK		
CERAMIC..... Ceramic			1AA0B10S094CA		
MT-PAPER..... Metallized Paper			TRANSISTOR		
POLYESTER..... Polyester			Q001	405 014 4509	TR 2SC2412K T146 R
MT-POLYEST.....Metallized Polyester				405 014 4608	TR 2SC2412K T146 S
POLYPRO..... Polypropylene				405 015 8704	TR 2SC2812-L6-TB
MT-POLYPRO.....Metallized Polypropylene				405 015 8902	TR 2SC2812-L7-TB
COMPO FILM..... Composite film			Q002	405 014 4509	TR 2SC2412K T146 R
MT-COMPO.....Metallized Composite				405 014 4608	TR 2SC2412K T146 S
STYRENE..... Styrene				405 015 8704	TR 2SC2812-L6-TB
TA-SOLID..... Tantalum Solid				405 015 8902	TR 2SC2812-L7-TB
AL-SOLID..... Aluminium Solid			Q003	405 014 4509	TR 2SC2412K T146 R
ELECT..... Electrolytic				405 014 4608	TR 2SC2412K T146 S
NP-ELECT..... Non-polarised Electrolytic				405 015 8704	TR 2SC2812-L6-TB
OS-SOLID..... Aluminium Solid with Organic Semiconductive Electrolytic				405 015 8902	TR 2SC2812-L7-TB
DL-ELECT..... Double Layered Electrolytic			Q004	405 014 4509	TR 2SC2412K T146 R
				405 014 4608	TR 2SC2412K T146 S
				405 015 8704	TR 2SC2812-L6-TB
				405 015 8902	TR 2SC2812-L7-TB
			Q111	405 015 9701	TR 2SC2814-F4-TB
			Q171	405 014 4509	TR 2SC2412K T146 R
				405 014 4608	TR 2SC2412K T146 S
				405 015 8704	TR 2SC2812-L6-TB
				405 015 8902	TR 2SC2812-L7-TB
			Q172	405 014 4509	TR 2SC2412K T146 R
				405 014 4608	TR 2SC2412K T146 S
				405 015 8704	TR 2SC2812-L6-TB
				405 015 8902	TR 2SC2812-L7-TB
			Q174	405 014 4509	TR 2SC2412K T146 R
				405 014 4608	TR 2SC2412K T146 S
				405 015 8704	TR 2SC2812-L6-TB
				405 015 8902	TR 2SC2812-L7-TB
			Q182	405 002 0308	TR 2SA1037K T146 R
				405 002 0407	TR 2SA1037K T146 S
				405 002 6706	TR 2SA1179-M6-TB
				405 002 6904	TR 2SA1179-M7-TB
RESISTOR					
CARBON	4.7K	J A 1/4W			
		Rated Wattage			
		Performance Symbols:			
		A: General B: Non flammable Z: Low noise			
		Other: Temperature coefficient			
		Tolerance Symbols:			
		A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%			
		F: ±1% G: ±2% J: ±5% K: ±10%			
		M: ±20% P: +5-15%			
		Rated value, ohms:			
		K: 1,000, M: 1,000,000			
Material:					
CARBON..... Carbon					
MT-FILM..... Metal Film					
OXIDE-MT..... Oxide Metal Film					
SOLID..... Composition					
MT-GLAZE..... Metal Glaze					
WIRE WOUND...Wire Wound					
CERAMIC RES.. Ceramic					
FUSIBLE RES.... Fusible					

Material:
CERAMIC..... Ceramic
MT-PAPER..... Metallized Paper
POLYESTER..... Polyester
MT-POLYEST..... Metallized Polyester
POLYPRO..... Polypropylene
MT-POLYPRO..... Metallized Polypropylene
COMPO FILM..... Composite film
MT-COMPO..... Metallized Composite
STYRENE..... Styrene
TA-SOLID..... Tantalum Solid
AL-SOLID..... Aluminium Solid
ELECT..... Electrolytic
NP-ELECT..... Non-polarised Electrolytic
OS-SOLID..... Aluminium Solid with Organic Semiconductive Electrolytic
DL-ELECT..... Double Layered Electrolytic

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
Q1902	405 002 0308	TR 2SA1037K T146 R		405 012 2002	TR 2SC1815-GR
	405 002 0407	TR 2SA1037K T146 S		405 012 2101	TR 2SC1815-O
	405 002 6706	TR 2SA1179-M6-TB		405 012 2309	TR 2SC1815-Y
	405 002 6904	TR 2SA1179-M7-TB		405 020 7501	TR 2SC945A-PA
Q261	406 000 6804	TR 2SA1015-G(SAN) -TPE2		405 020 7709	TR 2SC945A-QA
	405 001 7407	TR 2SA1015-O(SAN)		405 020 7907	TR 2SC945A-RA
	405 001 7605	TR 2SA1015-Y(SAN)	Q685	405 014 4509	TR 2SC2412K T146 R
	405 004 3109	TR 2SA564A-Q(CU)		405 014 4608	TR 2SC2412K T146 S
	405 004 3208	TR 2SA564A-R(CU)		405 015 8704	TR 2SC2812-L6-TB
	405 006 1707	TR 2SA933S-Q		405 015 8902	TR 2SC2812-L7-TB
	405 006 1806	TR 2SA933S-R	Q686	406 000 6804	TR 2SA1015-G(SAN) -TPE2
Q431	405 018 0507	TR 2SC3332-R		405 001 7407	TR 2SA1015-O(SAN)
	405 018 0606	TR 2SC3332-S		405 001 7605	TR 2SA1015-Y(SAN)
Q432	405 157 1304	TR 2SD2634-YB		405 004 3109	TR 2SA564A-Q(CU)
Q449	405 011 8401	TR 2SC1740S-Q		405 004 3208	TR 2SA564A-R(CU)
	405 011 8500	TR 2SC1740S-R		405 006 1707	TR 2SA933S-Q
	405 011 8609	TR 2SC1740S-S		405 006 1806	TR 2SA933S-R
	405 012 2002	TR 2SC1815-GR	Q818	405 014 4509	TR 2SC2412K T146 R
	405 012 2101	TR 2SC1815-O		405 014 4608	TR 2SC2412K T146 S
	405 012 2309	TR 2SC1815-Y		405 015 8704	TR 2SC2812-L6-TB
	405 020 7501	TR 2SC945A-PA		405 015 8902	TR 2SC2812-L7-TB
	405 020 7709	TR 2SC945A-QA	Q861	405 002 0308	TR 2SA1037K T146 R
	405 020 7907	TR 2SC945A-RA		405 002 0407	TR 2SA1037K T146 S
Q527	405 014 4509	TR 2SC2412K T146 R		405 002 6706	TR 2SA1179-M6-TB
	405 014 4608	TR 2SC2412K T146 S		405 002 6904	TR 2SA1179-M7-TB
	405 015 8704	TR 2SC2812-L6-TB	Q871	405 014 4509	TR 2SC2412K T146 R
	405 015 8902	TR 2SC2812-L7-TB		405 014 4608	TR 2SC2412K T146 S
Q611	406 000 6804	TR 2SA1015-G(SAN) -TPE2		405 015 8704	TR 2SC2812-L6-TB
	405 001 7407	TR 2SA1015-O(SAN)		405 015 8902	TR 2SC2812-L7-TB
	405 001 7605	TR 2SA1015-Y(SAN)	Q881	405 014 4509	TR 2SC2412K T146 R
	405 004 3109	TR 2SA564A-Q(CU)		405 014 4608	TR 2SC2412K T146 S
	405 004 3208	TR 2SA564A-R(CU)		405 015 8704	TR 2SC2812-L6-TB
	405 004 4205	TR 2SA608-E-CTV-NP		405 015 8902	TR 2SC2812-L7-TB
	405 004 4809	TR 2SA608-F-CTV-NP	Q886	405 011 8401	TR 2SC1740S-Q
	405 006 1103	TR 2SA933-Q		405 011 8500	TR 2SC1740S-R
	405 006 1202	TR 2SA933-R		405 011 8609	TR 2SC1740S-S
	405 006 1707	TR 2SA933S-Q		405 012 2002	TR 2SC1815-GR
	405 006 1806	TR 2SA933S-R		405 012 2101	TR 2SC1815-O
Q612	405 058 0208	TR 2SC3807-R-CTV-YA		405 012 2309	TR 2SC1815-Y
Q613	405 095 0407	TR 2SC4429-L-YB		405 020 7501	TR 2SC945A-PA
	405 095 0308	TR 2SC4429-M-YB		405 020 7709	TR 2SC945A-QA
Q631	405 014 4509	TR 2SC2412K T146 R		405 020 7907	TR 2SC945A-RA
	405 014 4608	TR 2SC2412K T146 S	INTEGRATED CIRCUIT		
	405 015 8704	TR 2SC2812-L6-TB	IC002	409 472 4507	IC LA4267
	405 015 8902	TR 2SC2812-L7-TB	IC201	409 517 5902	IC LA76818A
Q641	405 089 0000	TR 2SA1707-S	IC202	409 241 5407	IC BA178M05T
	405 089 0109	TR 2SA1707-T		409 265 4806	IC L78M05CV
	405 009 6907	TR 2SB985-S		409 172 1509	IC MC78M05CT
	405 009 7003	TR 2SB985-T		409 320 5700	IC UPC78M05AHF
Q661	405 059 9903	TR 2SD1913-R-RA	IC501	409 449 4103	IC LA78040
	405 060 0005	TR 2SD1913-S-RA		409 507 0900	IC LA78040N
Q681	405 011 8401	TR 2SC1740S-Q		409 510 1109	IC TDA9302H
	405 011 8500	TR 2SC1740S-R	IC651	409 241 5407	IC BA178M05T
	405 011 8609	TR 2SC1740S-S		409 265 4806	IC L78M05CV
	405 012 2002	TR 2SC1815-GR		409 172 1509	IC MC78M05CT
	405 012 2101	TR 2SC1815-O		409 320 5700	IC UPC78M05AHF
	405 012 2309	TR 2SC1815-Y	IC801	410 406 3305	IC LC863440V-5Y67-TLM
	405 020 7501	TR 2SC945A-PA	IC802	409 383 6805	IC 24LC08B/P
	405 020 7709	TR 2SC945A-QA	CAPACITOR		
	405 020 7907	TR 2SC945A-RA	C003	403 042 2405	ELECT 100U M 16V
Q683	405 089 0000	TR 2SA1707-S	C007	403 042 2405	ELECT 100U M 16V
	405 089 0109	TR 2SA1707-T	C010	403 047 5005	ELECT 470U M 25V
	405 009 6907	TR 2SB985-S	C011	403 051 0607	ELECT 4.7U M 50V
	405 009 7003	TR 2SB985-T	C013	403 045 1504	ELECT 1000U M 25V
Q684	405 011 8401	TR 2SC1740S-Q	C016	403 042 7707	ELECT 22U M 16V
	405 011 8500	TR 2SC1740S-R			
	405 011 8609	TR 2SC1740S-S			

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C017	403 212 1603	CERAMIC 0.22U Z 25V		403 343 8304	MT-POLYPRO 8000P H 1.5K
C023	403 181 8207	POLYESTER 0.1U K 50V	C436	403 165 6908	CERAMIC 560P K 3K
C1001	403 049 4204	ELECT 10U M 50V		403 287 3700	CERAMIC 560P K 3K
C1002	403 043 0202	ELECT 220U M 16V		403 287 3700	CERAMIC 560P K 3K
C1003	403 041 8804	ELECT 10U M 16V	C437	403 256 0808	MT-COMPO 0.47U J 50V
C1007	403 049 0008	ELECT 1U M 50V	C441	403 079 0009	MT-POLYPRO 0.33U J 200V
C101	403 044 1703	ELECT 470U M 16V		403 346 7205	MT-POLYPRO 0.33U J 250V
C106	403 051 3103	ELECT 47U M 50V	C449	403 041 8804	ELECT 10U M 16V
C107	403 051 3103	ELECT 47U M 50V	C469	403 049 4204	ELECT 10U M 50V
C111	403 215 2201	CERAMIC 0.01U K 50V	C471	404 056 5307	NP-ELECT 2.2U M 100V
C112	403 215 2201	CERAMIC 0.01U K 50V		404 045 6605	NP-ELECT 2.2U M 50V
C113	403 215 2201	CERAMIC 0.01U K 50V	C486	403 115 0802	ELECT 22U M 100V
C120	403 284 4304	CERAMIC 0.022U K 50V	C491	403 076 5304	CERAMIC 680P K 500V
C121	403 215 2201	CERAMIC 0.01U K 50V	C510	403 042 7707	ELECT 22U M 16V
C122	403 042 2405	ELECT 100U M 16V	C511	403 215 2201	CERAMIC 0.01U K 50V
C123	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	C514	403 049 4204	ELECT 10U M 50V
C124	403 215 2201	CERAMIC 0.01U K 50V	C515	403 045 1504	ELECT 1000U M 25V
C132	403 048 6308	ELECT 0.47U M 50V	C517	403 053 2104	ELECT 220U M 35V
C135	403 048 6308	ELECT 0.47U M 50V	C518	403 072 9405	CERAMIC 3300P K 50V
C138	403 284 4304	CERAMIC 0.022U K 50V	C520	403 064 1202	POLYESTER 0.1U K 100V
C171	403 113 3805	CERAMIC 1000P K 50V		403 276 9706	POLYESTER 0.1U K 100V
C172	403 367 0407	CERAMIC 0.1U K 50V	C521	403 054 1502	ELECT 470U M 35V
C174	403 157 1904	CERAMIC 10P D 50V	C524	403 064 1202	POLYESTER 0.1U K 100V
C175	401 105 7909	MT-GLAZE 0.000 ZA 1/16W		403 276 9706	POLYESTER 0.1U K 100V
C177	401 105 4601	MT-GLAZE 3.9K JA 1/16W	C527	403 049 4204	ELECT 10U M 50V
C190	403 042 4805	ELECT 1000U M 16V	C601	404 071 2107	MT-POLYEST 0.1U K 250V
C1902	403 050 2800	ELECT 22U M 50V		404 072 5602	MT-POLYEST 0.1U M 250V
C201	403 086 2300	NP-ELECT 1U M 50V		404 060 7205	MT-POLYEST 0.1U M 250V
C202	403 249 9009	MT-COMPO 0.015U J 50V		404 066 1702	MT-POLYEST 0.1U M 275V
C203	403 215 2201	CERAMIC 0.01U K 50V	C602	404 071 2107	MT-POLYEST 0.1U K 250V
C204	403 049 4204	ELECT 10U M 50V		404 072 5602	MT-POLYEST 0.1U M 250V
C205	403 049 4204	ELECT 10U M 50V		404 060 7205	MT-POLYEST 0.1U M 250V
C206	403 067 5603	MT-COMPO 0.1U J 50V		404 066 1702	MT-POLYEST 0.1U M 275V
	403 237 8007	MT-COMPO 0.1U J 50V	C603	403 076 6707	CERAMIC 1000P K 1K
C207	403 067 5603	MT-COMPO 0.1U J 50V		403 271 9602	CERAMIC 1000P K 1K
	403 237 8007	MT-COMPO 0.1U J 50V	C604	403 076 6707	CERAMIC 1000P K 1K
C208	403 113 3805	CERAMIC 1000P K 50V		403 271 9602	CERAMIC 1000P K 1K
C209	403 048 6308	ELECT 0.47U M 50V	C605	403 076 6707	CERAMIC 1000P K 1K
C210	403 135 8307	ELECT 470U M 50V		403 271 9602	CERAMIC 1000P K 1K
C212	403 157 1706	CERAMIC 8P D 50V	C606	403 076 6707	CERAMIC 1000P K 1K
C213	403 157 1706	CERAMIC 8P D 50V		403 271 9602	CERAMIC 1000P K 1K
C221	403 305 3507	CERAMIC 0.1U Z 50V	C607	404 067 4009	ELECT 100U M 400V
C222	403 305 3507	CERAMIC 0.1U Z 50V	C613	403 179 1104	POLYESTER 4700P K 50V
C223	403 305 3507	CERAMIC 0.1U Z 50V	C614	403 181 8207	POLYESTER 0.1U K 50V
C224	403 305 3507	CERAMIC 0.1U Z 50V	C615	403 179 3108	POLYESTER 0.015U K 50V
C225	403 049 0008	ELECT 1U M 50V	C616	403 247 6604	CERAMIC 680P K 2K
C226	403 049 0008	ELECT 1U M 50V		403 275 8205	CERAMIC 680P K 2K
C227	403 049 0008	ELECT 1U M 50V	C617	403 179 2408	POLYESTER 0.022U K 50V
C231	403 260 2904	MT-COMPO 0.33U J 50V	△C627	404 073 5106	CERAMIC 470P K 250V
C232	403 260 2904	MT-COMPO 0.33U J 50V		404 073 3300	CERAMIC 470P M 250V
C233	403 049 4204	ELECT 10U M 50V		404 071 4507	CERAMIC 470P K 400V
C234	403 215 2201	CERAMIC 0.01U K 50V	△C628	404 073 3904	CERAMIC 1000P K 250V
C243	403 215 2201	CERAMIC 0.01U K 50V		404 073 2105	CERAMIC 1000P M 250V
C244	403 051 3103	ELECT 47U M 50V		404 071 3302	CERAMIC 1000P M 400V
C245	403 086 2300	NP-ELECT 1U M 50V	△C629	404 073 3904	CERAMIC 1000P K 250V
C246	403 049 0008	ELECT 1U M 50V		404 073 2105	CERAMIC 1000P M 250V
C247	403 049 0008	ELECT 1U M 50V		404 071 3302	CERAMIC 1000P M 400V
C270	403 157 3601	CERAMIC 100P J 50V	C631	403 247 5003	CERAMIC 470P K 1K
C271	403 157 3601	CERAMIC 100P J 50V		403 269 1809	CERAMIC 470P K 1K
C273	403 305 3507	CERAMIC 0.1U Z 50V		403 269 1809	CERAMIC 470P K 1K
C283	403 215 2201	CERAMIC 0.01U K 50V	C633	403 247 5003	CERAMIC 470P K 1K
C295	403 048 6308	ELECT 0.47U M 50V		403 269 1809	CERAMIC 470P K 1K
C358	403 049 0008	ELECT 1U M 50V	C634	403 247 5003	CERAMIC 470P K 1K
C432	403 075 7101	CERAMIC 1000P K 500V		403 269 1809	CERAMIC 470P K 1K
C433	403 076 3102	CERAMIC 3900P K 500V		403 269 1809	CERAMIC 470P K 1K
C434	403 054 0703	ELECT 47U M 35V	C635	403 247 5003	CERAMIC 470P K 1K
C435	404 077 4709	MT-POLYPRO 8000P H 1.5K			

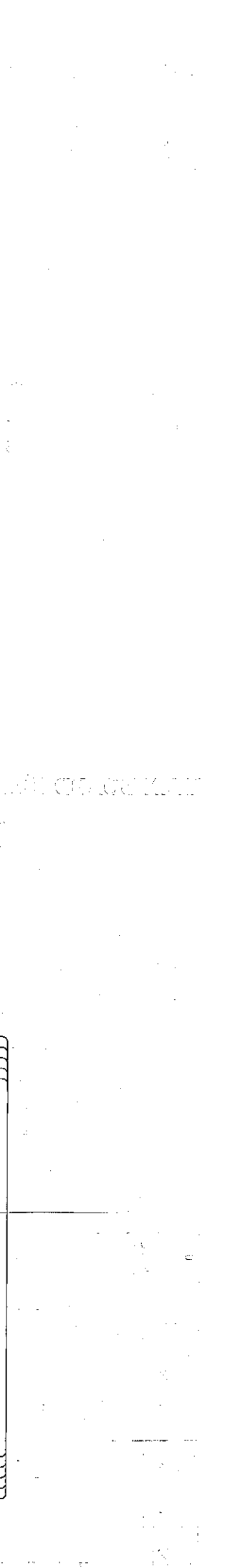
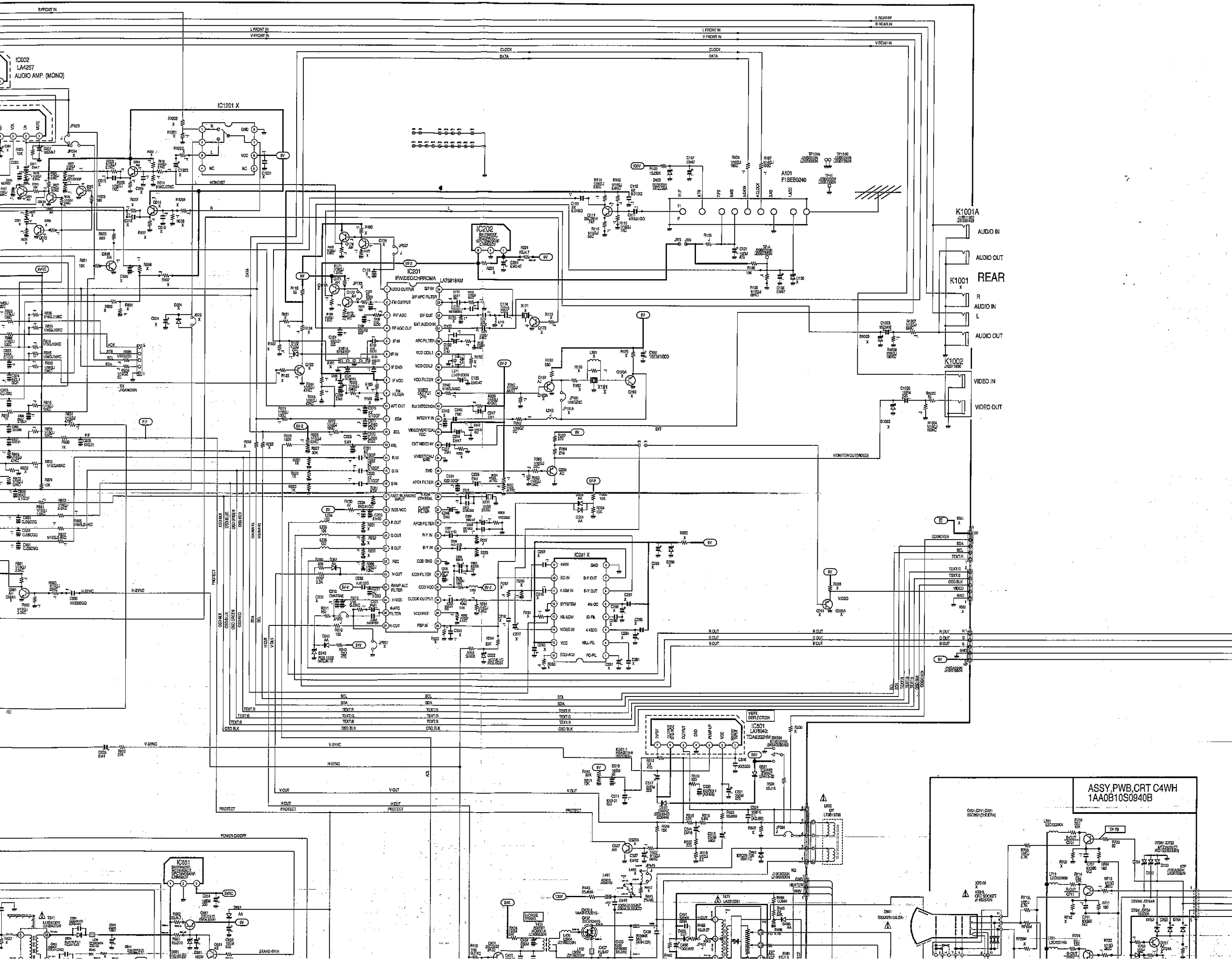
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C641	403 269 1809	CERAMIC 470P K 1K	R106	401 105 0405	MT-GLAZE 100 JA 1/16W
	403 269 1809	CERAMIC 470P K 1K	R107	401 105 0405	MT-GLAZE 100 JA 1/16W
	404 052 9309	ELECT 220U M 160V	R108	401 025 4606	CARBON 18K JA 1/6W
	404 042 4505	ELECT 220U M 160V	R109A	401 027 5908	CARBON 68K JA 1/6W
C643	403 148 2002	ELECT 470U M 35V	R111	401 105 0504	MT-GLAZE 1K JA 1/16W
C644	403 148 0404	ELECT 1000U M 25V	R112	401 105 6001	MT-GLAZE 5.6K JA 1/16W
C645	403 148 0404	ELECT 1000U M 25V	R114	401 105 4007	MT-GLAZE 330 JA 1/16W
C651	403 040 9406	ELECT 330U M 10V	R115	401 027 2105	CARBON 56 JA 1/6W
C661	403 043 0202	ELECT 220U M 16V	R116	401 105 5806	MT-GLAZE 56 JA 1/16W
C662	403 043 6006	ELECT 330U M 16V	R130	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C681	403 049 4204	ELECT 10U M 50V	R132	401 105 5202	MT-GLAZE 470 JA 1/16W
C685	403 049 0008	ELECT 1U M 50V	R140	401 105 5905	MT-GLAZE 560 JA 1/16W
C801	403 155 4204	CERAMIC 15P J 50V	R141	401 105 5905	MT-GLAZE 560 JA 1/16W
C802	403 157 2505	CERAMIC 27P J 50V	R171	401 105 1501	MT-GLAZE 1.5K JA 1/16W
C803	403 215 2201	CERAMIC 0.01U K 50V	R172	401 105 0504	MT-GLAZE 1K JA 1/16W
C804	403 356 5109	CERAMIC 0.047U K 50V	R174	401 024 6700	CARBON 100 JA 1/6W
C805	403 041 8804	ELECT 10U M 16V	R176	401 105 0603	MT-GLAZE 10K JA 1/16W
C806	403 342 3300	CERAMIC 0.1U K 25V	R178	401 105 1006	MT-GLAZE 1.2K JA 1/16W
C807	403 041 8804	ELECT 10U M 16V	R188	401 105 1006	MT-GLAZE 1.2K JA 1/16W
C811	403 215 2201	CERAMIC 0.01U K 50V	R1902	401 105 3406	MT-GLAZE 27K JA 1/16W
C816	403 215 2201	CERAMIC 0.01U K 50V	R1903	401 105 1105	MT-GLAZE 12K JA 1/16W
C823	403 342 3300	CERAMIC 0.1U K 25V	R1904	401 105 6001	MT-GLAZE 5.6K JA 1/16W
C824	403 305 3507	CERAMIC 0.1U Z 50V	R1905	401 105 4601	MT-GLAZE 3.9K JA 1/16W
C825	403 009 3001	CERAMIC 100P J 50V	R1906	401 105 2805	MT-GLAZE 2.2K JA 1/16W
C826	403 164 0204	CERAMIC 0.1U Z 25V	R1907	401 024 6700	CARBON 100 JA 1/6W
C828	403 069 5007	CERAMIC 0.01U K 50V	R1911	401 025 7409	CARBON 220 JA 1/6W
C829	403 164 0204	CERAMIC 0.1U Z 25V	R1912	401 025 7409	CARBON 220 JA 1/6W
C832	403 069 5007	CERAMIC 0.01U K 50V	R1913	401 025 7409	CARBON 220 JA 1/6W
C835	403 049 0008	ELECT 1U M 50V	R199	401 027 2303	CARBON 560 JA 1/6W
C836	403 028 1606	CERAMIC 56P J 50V	R208	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C837	403 157 3106	CERAMIC 56P J 50V	R210	401 105 3703	MT-GLAZE 3K JA 1/16W
C851	403 157 3106	CERAMIC 56P J 50V	R211	401 025 1308	CARBON 150 JA 1/6W
C852	403 157 3106	CERAMIC 56P J 50V	R212	401 025 1308	CARBON 150 JA 1/6W
C853	403 157 3106	CERAMIC 56P J 50V	R221	401 024 7004	CARBON 1K JA 1/6W
C856	403 069 0507	CERAMIC 1000P K 50V	R222	401 024 7004	CARBON 1K JA 1/6W
C861	403 047 8402	ELECT 0.1U M 50V	R223	401 024 7004	CARBON 1K JA 1/6W
C862	403 164 0204	CERAMIC 0.1U Z 25V	R224	401 105 5301	MT-GLAZE 4.7K JA 1/16W
C880	403 155 2200	CERAMIC 3300P K 50V	R225	401 105 5301	MT-GLAZE 4.7K JA 1/16W
C892	403 164 0204	CERAMIC 0.1U Z 25V	R226	401 105 2904	MT-GLAZE 22K JA 1/16W
C893	403 049 9803	ELECT 2.2U M 50V	R227	401 026 4605	CARBON 33K JA 1/6W
C894	403 333 5108	CERAMIC 0.033U K 50V	R228	401 025 2305	CARBON 150K JA 1/6W
RESISTOR			R229	401 105 5509	MT-GLAZE 470K JA 1/16W
R001	401 105 5905	MT-GLAZE 560 JA 1/16W	R230	401 026 9303	CARBON 47 JA 1/6W
R006	401 025 7805	CARBON 2.2K JA 1/6W	R242	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R010	401 024 7400	CARBON 10K JA 1/6W	R243	401 068 3703	OXIDE-MT 470 JA 2W
R013	401 026 1000	CARBON 2.7K JA 1/6W	R244	401 105 5400	MT-GLAZE 47K JA 1/16W
R014	401 105 3406	MT-GLAZE 27K JA 1/16W	R245	401 105 5400	MT-GLAZE 47K JA 1/16W
R016	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R263	401 105 0603	MT-GLAZE 10K JA 1/16W
R017	401 105 0702	MT-GLAZE 100K JA 1/16W	R264	401 026 0607	CARBON 270 JA 1/6W
R018	401 105 3307	MT-GLAZE 2.7K JA 1/16W	R265	401 105 3901	MT-GLAZE 33 JA 1/16W
R019	401 011 8908	CARBON 1 JA 1/4W	R267	401 026 0607	CARBON 270 JA 1/6W
R020	401 105 3307	MT-GLAZE 2.7K JA 1/16W	R271	401 105 0405	MT-GLAZE 100 JA 1/16W
R021	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R272	401 105 0405	MT-GLAZE 100 JA 1/16W
R024	401 105 3406	MT-GLAZE 27K JA 1/16W	R280	401 105 0405	MT-GLAZE 100 JA 1/16W
R026	401 105 6506	MT-GLAZE 680 JA 1/16W	R282	401 026 4308	CARBON 3.3K JA 1/6W
R027	401 105 0702	MT-GLAZE 100K JA 1/16W	R284	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R028	401 027 5205	CARBON 680 JA 1/6W	R286	401 203 9904	MT-GLAZE 4.7K FA 1/16W
R029	401 105 0504	MT-GLAZE 1K JA 1/16W	R291	401 068 1600	OXIDE-MT 4.7 JA 2W
R1001	401 113 4402	MT-GLAZE 75 JA 1/16W	R350	401 024 7400	CARBON 10K JA 1/6W
R1003	401 027 6608	CARBON 75 JA 1/6W	R351	401 027 8602	CARBON 8.2K JA 1/6W
R1004	401 105 0702	MT-GLAZE 100K JA 1/16W	R352	401 012 7009	CARBON 10K JA 1/4W
R1007	401 105 6506	MT-GLAZE 680 JA 1/16W	R354	401 025 8208	CARBON 22K JA 1/6W
R1008	401 105 0603	MT-GLAZE 10K JA 1/16W	R355	401 012 7009	CARBON 10K JA 1/4W
R1009	401 105 0702	MT-GLAZE 100K JA 1/16W	R356	401 105 0603	MT-GLAZE 10K JA 1/16W
R1010	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R357	401 026 4308	CARBON 3.3K JA 1/6W
R103	401 061 8101	OXIDE-MT 39K JA 1W	R358	401 105 4700	MT-GLAZE 39K JA 1/16W
			R359	401 025 1902	CARBON 15K JA 1/6W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	645 047 1681	TRANS, POWER, PULSE 20/21 S		407 009 6901	DIODE RM11C
COIL			D448	407 063 8903	ZENER DIODE MTZJ5.6C
L171	645 049 3379	TRANS, OSC, 38MHZ		407 057 0104	ZENER DIODE RD5.6EB3
	645 054 0271	TRANS, OSC, 38MHZ	D467	407 011 4407	DIODE TVR1G
L234	401 024 9008	CARBON 120 JA 1/6W	D468	407 005 4505	DIODE DS442X
L235	401 024 9008	CARBON 120 JA 1/6W		408 008 2406	DIODE 1N4148
L236	401 024 9008	CARBON 120 JA 1/6W		407 012 4406	DIODE 1SS133
L431	610 031 9998	PIPE CORE		407 013 4306	DIODE 1S2076A
	645 018 7025	CORE, PIPE		407 013 7109	DIODE 1S2473
L432	610 031 9998	PIPE CORE	D476	407 099 5501	ZENER DIODE MTZJ6.2C
	645 018 7025	CORE, PIPE		407 057 2801	ZENER DIODE RD6.2EB3
L441	610 000 0605	LINEARITY COIL	D485	407 007 7405	DIODE EU1
	610 210 8071	LINEARITY COIL	D486	407 005 4505	DIODE DS442X
L601	645 019 3873	LINE FILTER		408 008 2406	DIODE 1N4148
	652 000 1961	LINE FILTER		407 012 4406	DIODE 1SS133
L631	645 018 9722	CORE, PIPE		407 013 4306	DIODE 1S2076A
L634	645 018 9722	CORE, PIPE		407 013 7109	DIODE 1S2473
L635	645 018 9722	CORE, PIPE	D501	407 005 7308	DIODE EM01Z
L801	645 008 2894	INDUCTOR, 5.6U K		407 005 8602	DIODE ERA15-02
DIODE				408 009 9008	DIODE BYD33D
D003	407 005 4505	DIODE DS442X		407 005 7308	DIODE EM01Z
	408 008 2406	DIODE 1N4148		407 005 8602	DIODE ERA15-02
	407 012 4406	DIODE 1SS133		408 009 9008	DIODE BYD33D
	407 013 4306	DIODE 1S2076A	D603	407 006 6300	DIODE ERC05-10B
	407 013 7109	DIODE 1S2473	D604	407 006 6300	DIODE ERC05-10B
D004	407 099 5808	ZENER DIODE MTZJ7.5A	D605	407 006 6300	DIODE ERC05-10B
	407 057 6304	ZENER DIODE RD7.5EB1	D606	407 006 6300	DIODE ERC05-10B
	407 151 8808	ZENER DIODE UZ-7.5BCA	△D610	407 104 2402	PHOTO COUPLE PC817C
D005	407 005 4505	DIODE DS442X		407 106 6101	PHOTO COUPLE PC817D
	408 008 2406	DIODE 1N4148		407 175 9904	PHOTO COUPLE TLP621-1-BL
	407 012 4406	DIODE 1SS133	D614	407 005 4505	DIODE DS442X
	407 013 4306	DIODE 1S2076A		408 008 2406	DIODE 1N4148
	407 013 7109	DIODE 1S2473		407 012 4406	DIODE 1SS133
D103	407 100 0204	ZENER DIODE MTZJ36A		407 013 4306	DIODE 1S2076A
	407 056 2307	ZENER DIODE RD36EB1		407 013 7109	DIODE 1S2473
D1910	407 158 9204	LED SPR-39MVWF	D616	407 005 4505	DIODE DS442X
D243	407 005 4505	DIODE DS442X		408 008 2406	DIODE 1N4148
	408 008 2406	DIODE 1N4148		407 012 4406	DIODE 1SS133
	407 012 4406	DIODE 1SS133		407 013 4306	DIODE 1S2076A
	407 013 4306	DIODE 1S2076A		407 013 7109	DIODE 1S2473
	407 013 7109	DIODE 1S2473	D617	407 007 6606	DIODE ES1
D249	407 099 6003	ZENER DIODE MTZJ9.1B		407 007 6903	DIODE ES1Z
	407 057 9701	ZENER DIODE RD9.1EB2		408 009 9008	DIODE BYD33D
D350	407 005 4505	DIODE DS442X	D618	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148		408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133		407 012 4406	DIODE 1SS133
	407 013 4306	DIODE 1S2076A		407 013 4306	DIODE 1S2076A
	407 013 7109	DIODE 1S2473	D619	407 063 9405	ZENER DIODE MTZJ8.2A
D351	407 005 4505	DIODE DS442X		407 057 6502	ZENER DIODE RD7.5EB3
	408 008 2406	DIODE 1N4148	D631	407 007 7702	DIODE EU2A
	407 012 4406	DIODE 1SS133		408 009 9206	DIODE BYD33J
	407 013 4306	DIODE 1S2076A		407 064 7004	DIODE 1S1835
	407 013 7109	DIODE 1S2473	D633	407 007 7603	DIODE EU2
D352	407 063 8705	ZENER DIODE MTZJ5.1C		407 007 7801	DIODE EU2Z
	407 056 9801	ZENER DIODE RD5.6EB1	D634	407 211 6102	DIODE FE301-1L43
D357	407 005 4505	DIODE DS442X		407 129 6706	DIODE RU4YX LF-L1
	408 008 2406	DIODE 1N4148	D635	407 211 6102	DIODE FE301-1L43
	407 012 4406	DIODE 1SS133		407 129 6706	DIODE RU4YX LF-L1
	407 013 4306	DIODE 1S2076A	D661	407 099 6102	ZENER DIODE MTZJ10B
	407 013 7109	DIODE 1S2473		407 054 0008	ZENER DIODE RD10EB2
D421	407 099 7208	ZENER DIODE MTZJ16A	D681	407 005 4505	DIODE DS442X
	407 099 7406	ZENER DIODE MTZJ16C		408 008 2406	DIODE 1N4148
	407 054 7007	ZENER DIODE RD16EB1		407 012 4406	DIODE 1SS133
	407 054 7205	ZENER DIODE RD16EB3		407 013 4306	DIODE 1S2076A
D441	407 006 6300	DIODE ERC05-10B		407 013 7109	DIODE 1S2473
			D683	407 005 4505	DIODE DS442X

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	408 008 2406	DIODE 1N4148			
	407 012 4406	DIODE 1SS133			
	407 013 4306	DIODE 1S2076A			
	407 013 7109	DIODE 1S2473			
D684	407 005 4505	DIODE DS442X			
	408 008 2406	DIODE 1N4148			
	407 012 4406	DIODE 1SS133			
	407 013 4306	DIODE 1S2076A			
	407 013 7109	DIODE 1S2473			
D685	407 099 5600	ZENER DIODE MTZJ6.8A			
	407 057 4003	ZENER DIODE RD6.8EB1			
D686	407 099 5501	ZENER DIODE MTZJ6.2C			
	407 057 2801	ZENER DIODE RD6.2EB3			
D861	407 055 7907	ZENER DIODE RD3.6EL			
	408 041 2005	ZENER DIODE RD3.6EL			
MISCELLANEOUS					
△ F601	423 028 8603	FUSE 250V 4A			
	423 024 8409	FUSE 250V 4A			
	423 007 2103	FUSE 250V 4A			
F601A	645 040 3576	HOLDER, FUSE			
F601B	645 040 3576	HOLDER, FUSE			
A101	645 051 8423	TUNER, U/V			
A1901A	645 041 1519	UNIT, REMOCON RECEIVER			
K1001	645 011 6186	JACK, RCA-2			
	645 002 1794	TERMINAL, BOARD			
K1002	645 011 2973	JACK, RCA-2			
K1004	645 002 1817	TERMINAL, BOARD			
PS601	408 003 6805	THERMISTOR 902P44E180MR14			
	408 042 1601	THERMISTOR PTH451A180M21			
SW1901	610 011 4432	SWITCH, PUSH			
	645 020 9246	SWITCH, PUSH 1P-1TX1			
SW1902	610 011 4432	SWITCH, PUSH			
	645 020 9246	SWITCH, PUSH 1P-1TX1			
SW1903	610 011 4432	SWITCH, PUSH			
	645 020 9246	SWITCH, PUSH 1P-1TX1			
SW1904	610 011 4432	SWITCH, PUSH			
	645 020 9246	SWITCH, PUSH 1P-1TX1			
SW1905	610 011 4432	SWITCH, PUSH			
	645 020 9246	SWITCH, PUSH 1P-1TX1			
SW1906	610 011 4432	SWITCH, PUSH			
	645 020 9246	SWITCH, PUSH 1P-1TX1			
SW501	610 011 2728	SWITCH, LEVER 1P-3T			
	652 000 0049	SWITCH, LEVER			
△ SW601	645 050 4129	SWITCH, PUSH POWER 2P-2T			
	645 053 4904	SWITCH, PUSH POWER 2P-2T			
△ VA601	407 130 2902	VARISTOR ENC471D-14A			
	407 171 2008	VARISTOR ERZV14D471			
X161A	421 009 4606	SAW F TSF5419P			
X211	645 024 8818	OSC, CRYSTAL 4.433619MHZ			
X801	645 004 1938	OSC, CRYSTAL 32.768KHZ			
	645 004 1945	OSC, CRYSTAL 32.768KHZ			
610 302 7043 ASSY,PWB,CRT C4WH 1AA0B10S0940B					
TRANSISTOR					
Q701	405 015 0609	TR 2SC2621-D			
	405 015 0807	TR 2SC2621-E			
	405 041 6705	TR 2SC2621-E-RA			
	405 015 3907	TR 2SC2688-L			
	405 015 4003	TR 2SC2688-M			
Q711	405 015 0609	TR 2SC2621-D			
	405 015 0807	TR 2SC2621-E			
	405 041 6705	TR 2SC2621-E-RA			
	405 015 3907	TR 2SC2688-L			
	405 015 4003	TR 2SC2688-M			
			Q721	405 015 0609	TR 2SC2621-D
				405 015 0807	TR 2SC2621-E
				405 041 6705	TR 2SC2621-E-RA
				405 015 3907	TR 2SC2688-L
				405 015 4003	TR 2SC2688-M
			Q741	406 000 6804	TR 2SA1015-G(SAN)-TPE2
				405 001 7407	TR 2SA1015-O(SAN)
				405 001 7605	TR 2SA1015-Y(SAN)
				405 004 3109	TR 2SA564A-Q(CU)
				405 004 3208	TR 2SA564A-R(CU)
				405 006 1707	TR 2SA933S-Q
				405 006 1806	TR 2SA933S-R
			Q751	405 002 0308	TR 2SA1037K T146 R
				405 002 0407	TR 2SA1037K T146 S
				405 002 6706	TR 2SA1179-M6-TB
				405 002 6904	TR 2SA1179-M7-TB
CAPACITOR					
			C701	403 157 6800	CERAMIC 680P K 50V
			C710	403 368 8907	ELECT 4.7U M 250V
			C711	403 157 6701	CERAMIC 560P K 50V
			C721	403 157 6602	CERAMIC 470P K 50V
			C731	403 077 2708	CERAMIC 1000P P 2K
				403 077 2807	CERAMIC 1000P Z 2K
				403 312 8304	CERAMIC 1000P Z 2K
			C751	403 042 4805	ELECT 1000U M 16V
RESISTOR					
			R701	401 025 3807	CARBON 180 JA 1/6W
			R703	401 027 8107	CARBON 82 JA 1/6W
			R704	401 065 4604	OXIDE-MT 12K JA 2W
			R705	401 009 1508	CARBON 2.7K JA 1/2W
			R711	401 025 3807	CARBON 180 JA 1/6W
			R713	401 105 7206	MT-GLAZE 82 JA 1/16W
			R714	401 065 4604	OXIDE-MT 12K JA 2W
			R715L	401 009 1508	CARBON 2.7K JA 1/2W
			R721	401 025 3807	CARBON 180 JA 1/6W
			R723	401 105 7206	MT-GLAZE 82 JA 1/16W
			R724	401 065 4604	OXIDE-MT 12K JA 2W
			R725L	401 009 1508	CARBON 2.7K JA 1/2W
			R741	401 026 9600	CARBON 470 JA 1/6W
			R743	401 105 1105	MT-GLAZE 12K JA 1/16W
			R744	401 105 1006	MT-GLAZE 1.2K JA 1/16W
			R751	401 105 0603	MT-GLAZE 10K JA 1/16W
			R752	401 105 0603	MT-GLAZE 10K JA 1/16W
			R753	401 105 0603	MT-GLAZE 10K JA 1/16W
			COIL		
			L701	645 008 0012	INDUCTOR, 330U K
			L711	645 008 0012	INDUCTOR, 330U K
			L721	645 008 0012	INDUCTOR, 330U K
DIODE					
			D731	407 099 6102	ZENER DIODE MTZJ10B
				407 099 6201	ZENER DIODE MTZJ10C
				407 054 0008	ZENER DIODE RD10EB2
				407 054 0107	ZENER DIODE RD10EB3
			D732	407 099 6102	ZENER DIODE MTZJ10B
				407 099 6201	ZENER DIODE MTZJ10C
				407 054 0008	ZENER DIODE RD10EB2
				407 054 0107	ZENER DIODE RD10EB3
			D733	407 099 6102	ZENER DIODE MTZJ10B
				407 099 6201	ZENER DIODE MTZJ10C
				407 054 0008	ZENER DIODE RD10EB2
				407 054 0107	ZENER DIODE RD10EB3
			D741	407 012 4406	DIODE 1SS133
			D742	407 012 4406	DIODE 1SS133
			D751	407 149 0807	DIODE 1SS355-TE-17

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
D752	407 149 0807	DIODE 1SS355-TE-17			
D753	407 149 0807	DIODE 1SS355-TE-17			
D754	407 149 0807	DIODE 1SS355-TE-17			
MISCELLANEOUS					
△K701L	645 026 2005	SOCKET,CRT 8P			





FRONT
AV-ST

K1003
X
R IN

L IN

V IN

FRONT
MONO

K1004
JH801500

VIDEO IN

AUDIO IN

K1101
X

HEAD
PHONE

SPK1
A10317500

SPK2
A10325500

SW1001
A10325500

SW1002
A10325500

SW1003
A10325500

SW1004
A10325500

SW1005
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SW1006
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SW1007
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SW1008
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SW1009
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SW1010
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SW1013
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SW1016
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SW1017
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SW1018
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SW1019
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SW1020
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SW1021
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SW1022
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SW1023
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SW1024
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SW1038
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SW1040
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SW1041
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SW1042
A10325500

SW1043
A10325500

SW1044
A10325500

ASSY,PWB,MAIN F8VK
1AA0B10S094CA

SANYO
COLOUR TELEVISION
AG5-C
SERIES

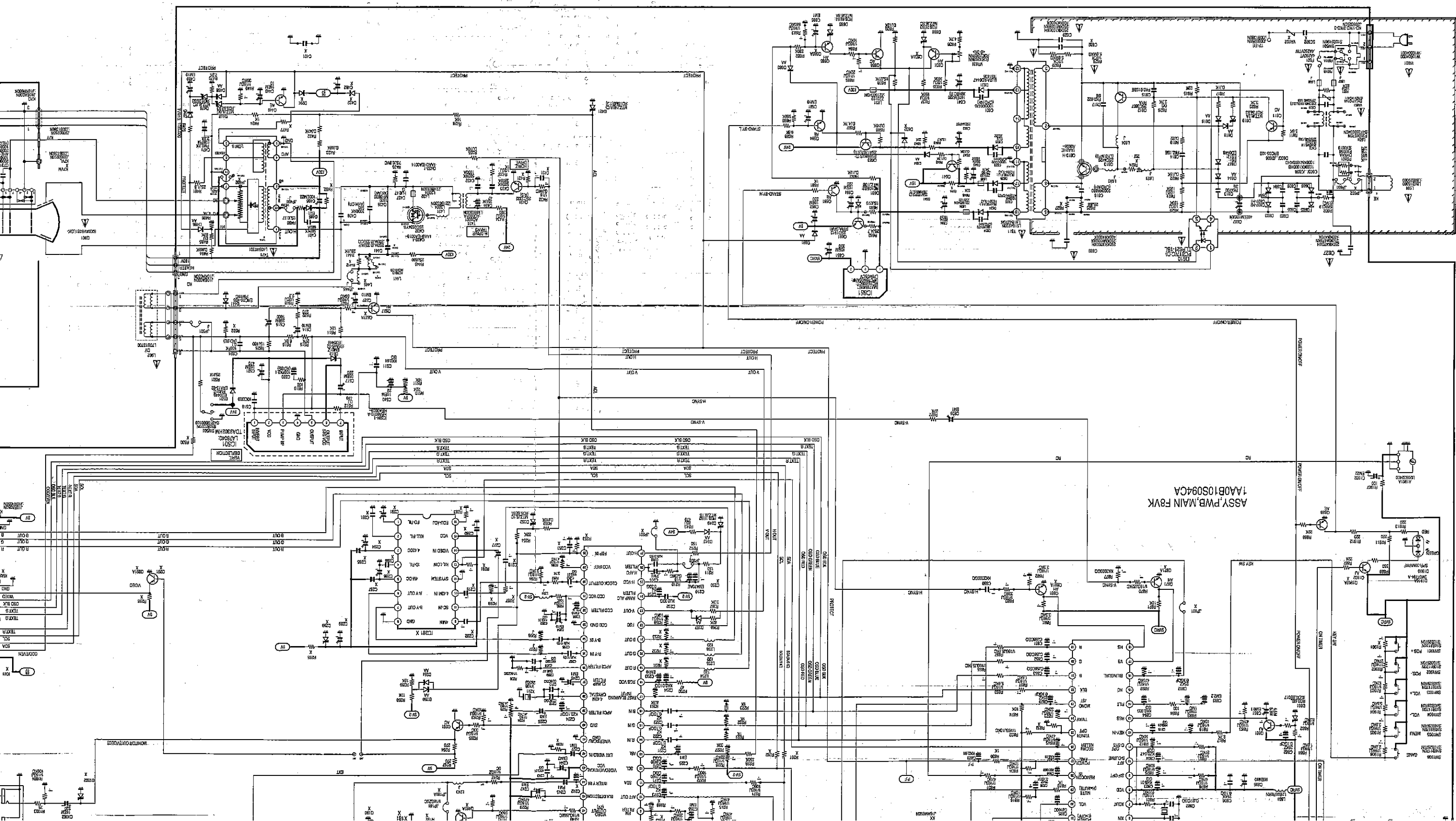
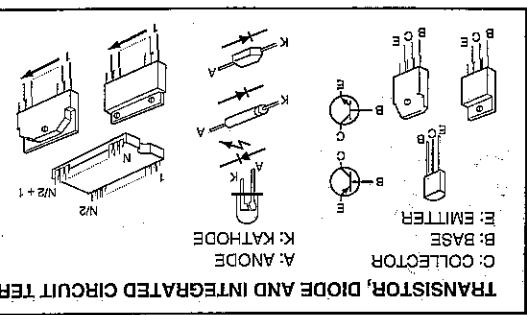
REF. NO.
CP21SW1Z-00

THE SERVICE PRECAUTION:
The area enclosed by this line () is directly connected with AC mains voltage and AC line to eliminate hazard of electric shock.
When servicing the area, connect an isolating transformer between TV receiver and AC

PRODUCT SAFETY NOTICE:
Components indicated by a mark Δ in this circuit diagram show components whose values have special significance to product safety. It is particularly recommended that only parts specified on the part service manual be used for components replacement pointed out by the mark.
Component replacement is made in any area of a receiver.
Product safety should be considered when a component replacement is made in any area of a receiver.

- CIRCUIT DIAGRAM NOTICE:**
1. All resistance value are in ohms, K=1,000, M=1,000,000.
 2. All resistance rated wattages are 1/6W unless otherwise noted.
 3. Excepting electrolytic capacitors, all capacitance values of less than 1 are expressed in pF and more than 1 are pF.
 4. All capacitance rated voltages are 50V unless otherwise noted.
 5. All inductance values are in μ H.
 6. Voltage readings taken with a "VTVM" are from point indicated chassis ground. Voltage readings taken by using PAL colour bar signal are with all controls at normal position. Some voltage may vary with signal strength.
 7. Waveform were taken with PAL colour bar and controls adjusted for normal picture. Waveforms were taken by using a wide band oscilloscope and a low capacity probe.
 8. This circuit diagram covers a basic or representative chassis only. There may be some components or partial circuit differences between the actual chassis and the circuit diagram.
 9. Parts specified with "X" are not installed in this model.
 10. Parts specified with "J" are just jumper wires.

- 11. Expression of capacitance and resistance in circuit diagram.**
- Capacitance (Example)
1000 C M 2000 P
T, A, U, D.
Kind (Ceramic)
Rated voltage (1,000V)
Allowable error ($\pm 20\%$)
Capacitance value (220pF)
K $\pm 10\%$
J $\pm 5\%$
- Resistance (Example)
1/2 N J 1.2
Kind (M. carbon)
Rated wattage (1/2W)
Allowable error ($\pm 5\%$)
Resistance value (1.2 Ω)
D: Carbon
C: Solid
W: Wire winding
S: Oxidized metalized
Z: Metalized paper
M: N: Polypropylene
F: Mylar film
C, K, B: Ceramic
T, A, U, D.



SAFETY NOTICE:

could be considered when a component is made in any area

now components whose clearly recommended that only the part service manual be

replaced by a mark Δ in this

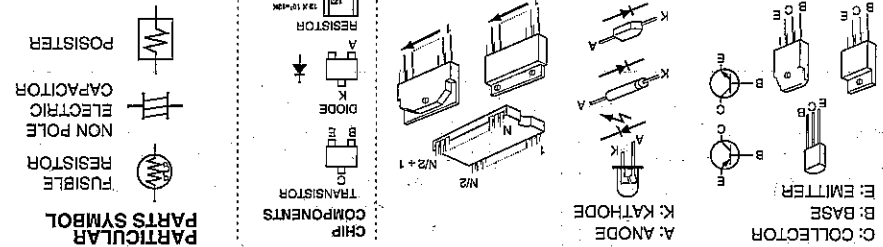
1. All resistance values are in ohms, K=1,000, M=1,000,000.
2. All resistance rated wattages are 1/6W unless otherwise noted.
3. Excepting electrolytic capacitors, all capacitance values of less than 1 are expressed in pF and more than 1 are pF.
4. All capacitance rated voltages are 50V unless otherwise noted.
5. All inductance values are in μ H.
6. Voltage readings taken with a "VTVM" are from point indicated chassis ground. Voltage readings taken by using PAL colour bar signal are normal picture. Waveforms were taken by using a wide band oscilloscope and a low capacity probe.
7. Waveform were taken with PAL colour bar and controls adjusted for strength.
8. This circuit diagram covers a basic or representative chassis only. There may be some components or partial circuit differences between the actual chassis and the circuit diagram.
9. Parts specified with "X" are not installed in this model.
10. Parts specified with "J" are just jumper wires.

CIRCUIT DIAGRAM NOTICE:

11. Expression of capacitance and resistance in circuit diagram.

- Resistance (Example)
- Rated wattage (1/2W)
- Kind (M, carbon)
- Allowable error ($\pm 5\%$)
- Resistance value (1.25)
- Rated voltage (1,000V)
- Kind (Ceramic)
- Allowable error ($\pm 20\%$)
- Capacitance value (220pF)
- Characteristic
- Capacitance (Example)
- 1000 C M 2000 D
- J $\pm 5\%$
- K $\pm 10\%$
- M $\pm 20\%$
- T, A, U, D
- Electrolytic
- C, K, B, Ceramic
- F, Mylar film
- M, N, Polypropylene
- Z, Metallized paper
- D: Carbon
- S: Oxidized metal
- W: Wire winding
- C: Solid

TRANSISTOR, DIODE AND INTEGRATED CIRCUIT TERMINAL GUIDE



PARTS SYMBOL

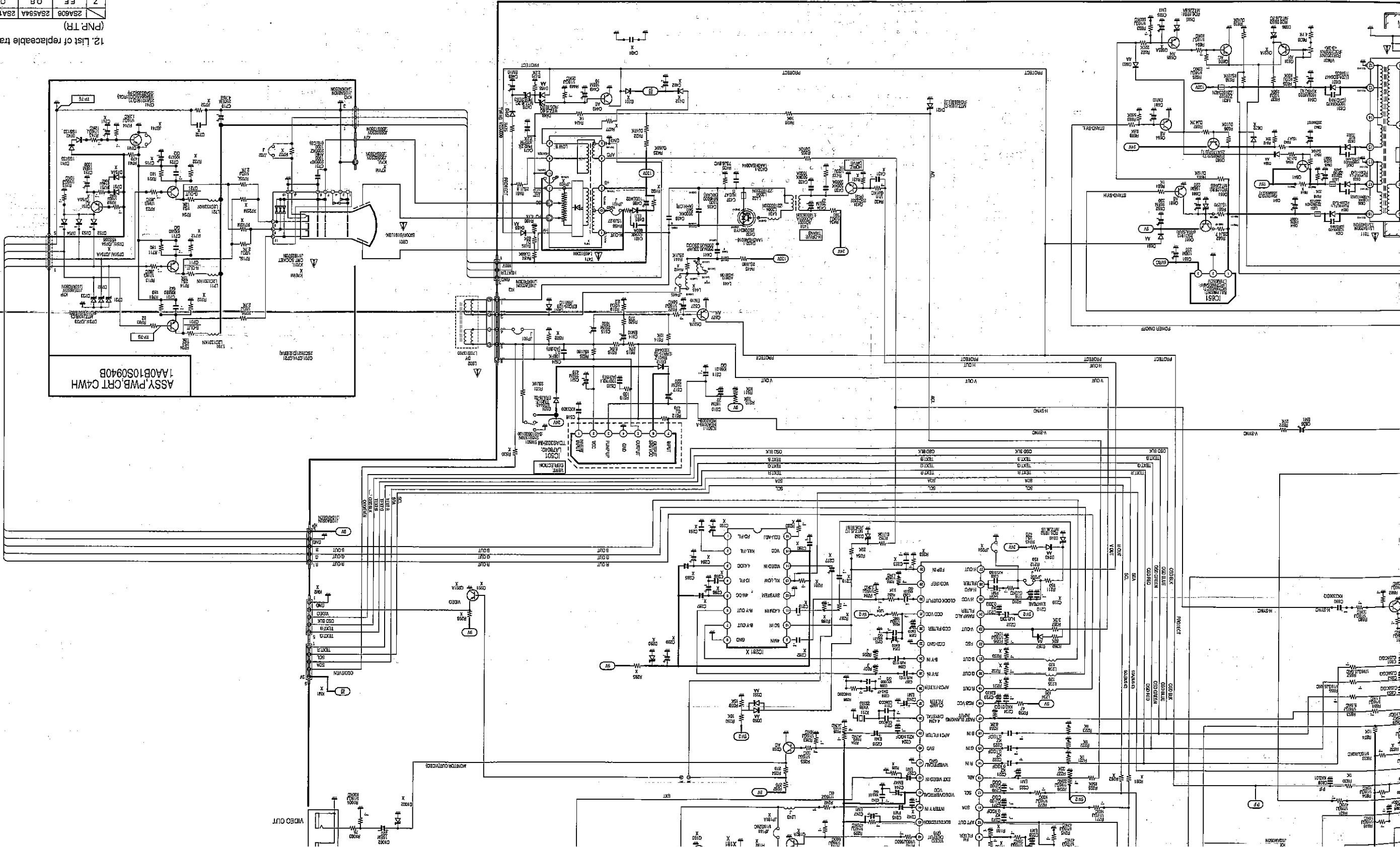
FUSIBLE
NON POLE
ELECTRIC
CAPACITOR
POSISTER

G	F.G	P	G	R.S	G
I	F.G	R.O.R	O.Y.G	O.R.S	Y.G
H	F.G	P	G	R.S	Y.G
D	F.G	R.O.R	O.Y.G	O.R.S	Y.G
B	F.G	R.O.R	O.Y.G	O.R.S	Y.G
A	F.G	R.O.R	O.Y.G	O.R.S	Y.G
25C636	25C946A	25C1815	25C1740	25C1740S	K5C945C

M	1S176, 1S183, GMA01
P	1S155, 1S207A, 1S247, 1N4148
R	1S155, 1S247, 1S207A, DS442, 1N4148

25A906	25A94A	25A1015	25A93	25A93S	K5A733C
Z	E.F	O.R	O.Y.G	O.R	O.R
Y	E.F	O.R	O.Y.G	O.R	O.R
W	E.F	O.R	O.Y.G	O.R	O.R
V	E.F	O.R	O.Y.G	O.R	O.R
U	F	R	Y.G	R	G

12. List of replaceable transistors and diodes.



Waveforms & Voltages

(On the Main Board)

IC201 (IF/VIDEO/CHROMA)									
Pin-1	2.3V	2	2.2V	3	2.7V	4	3.2V	5	2.9V
10	2.3V	11	4.3V	12	4.1V	13	4.3V	14	1.6V
19	2.2V	20	2.1V	21	2.1V	22	2.0V	23	2.2V
28	1.3V	29	1.7V	30	0.9V	31	4.5V	32	8.4V
37	1.9V	38	2.8V	39	3.5V	40	2.5V	41	0V
46	2.3V	47	3.8V	48	4.1V	49	4.1V	50	2.5V
51	2.2V	52	2.0V	53	2.2V	54	3.1V		

IC501 (VERT. OUT)							
Pin-1	2.9V	2	26.4V	3	1.6V	4	0V
		5	18.0V	6	27.0V	7	2.9V

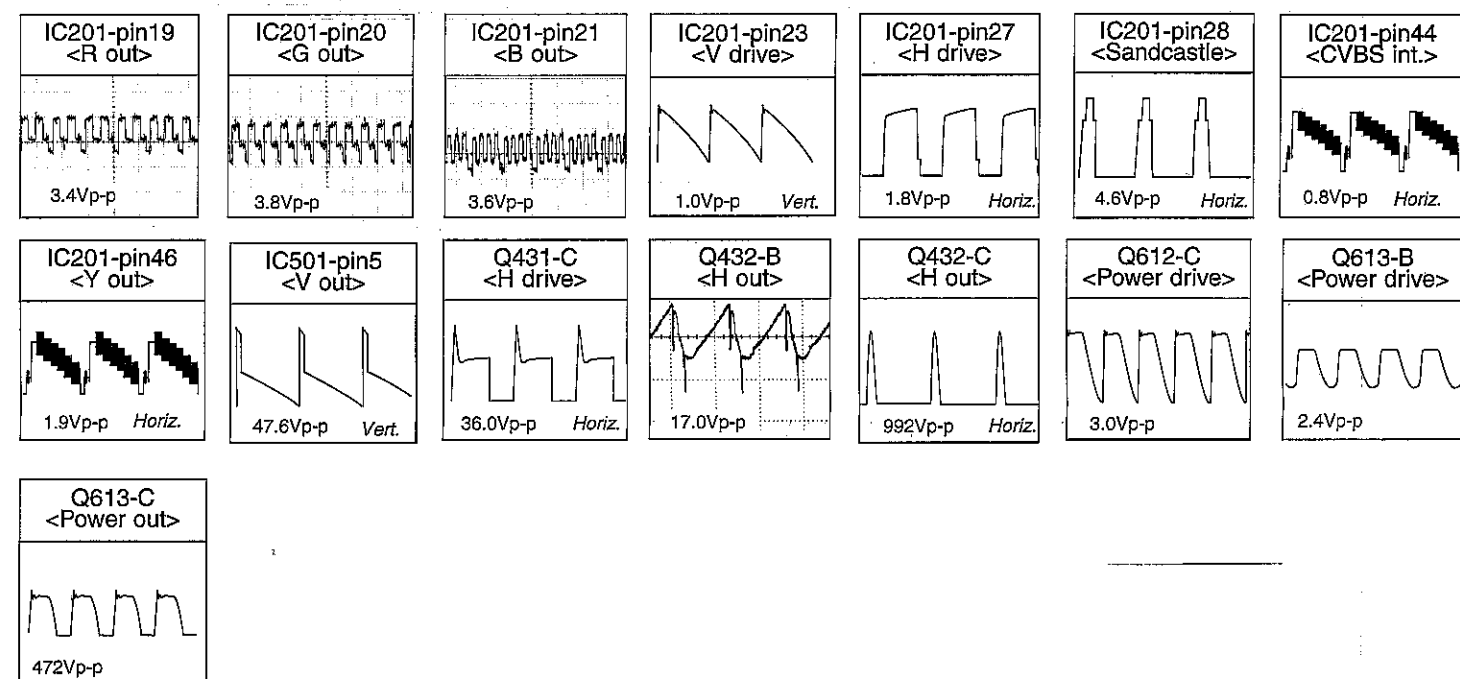
IC002 (AUDIO AMP.)									
Pin-1	N.C.	2	N.C.	3	7.1V	4	0V	5	0.7V
10	N.C.					6	1.2V	7	6.8V
						8	GND	9	14.4V

IC202				IC651			
Pin-1	7.8V	2	0V	3	5.0V		
				Pin-1	12.5V	2	0V
						3	5.0V

IC802 (MEMORY)															
Pin-1	GND	2	GND	3	GND	4	GND	5	5.0V	6	5.0V	7	GND	8	5.0V

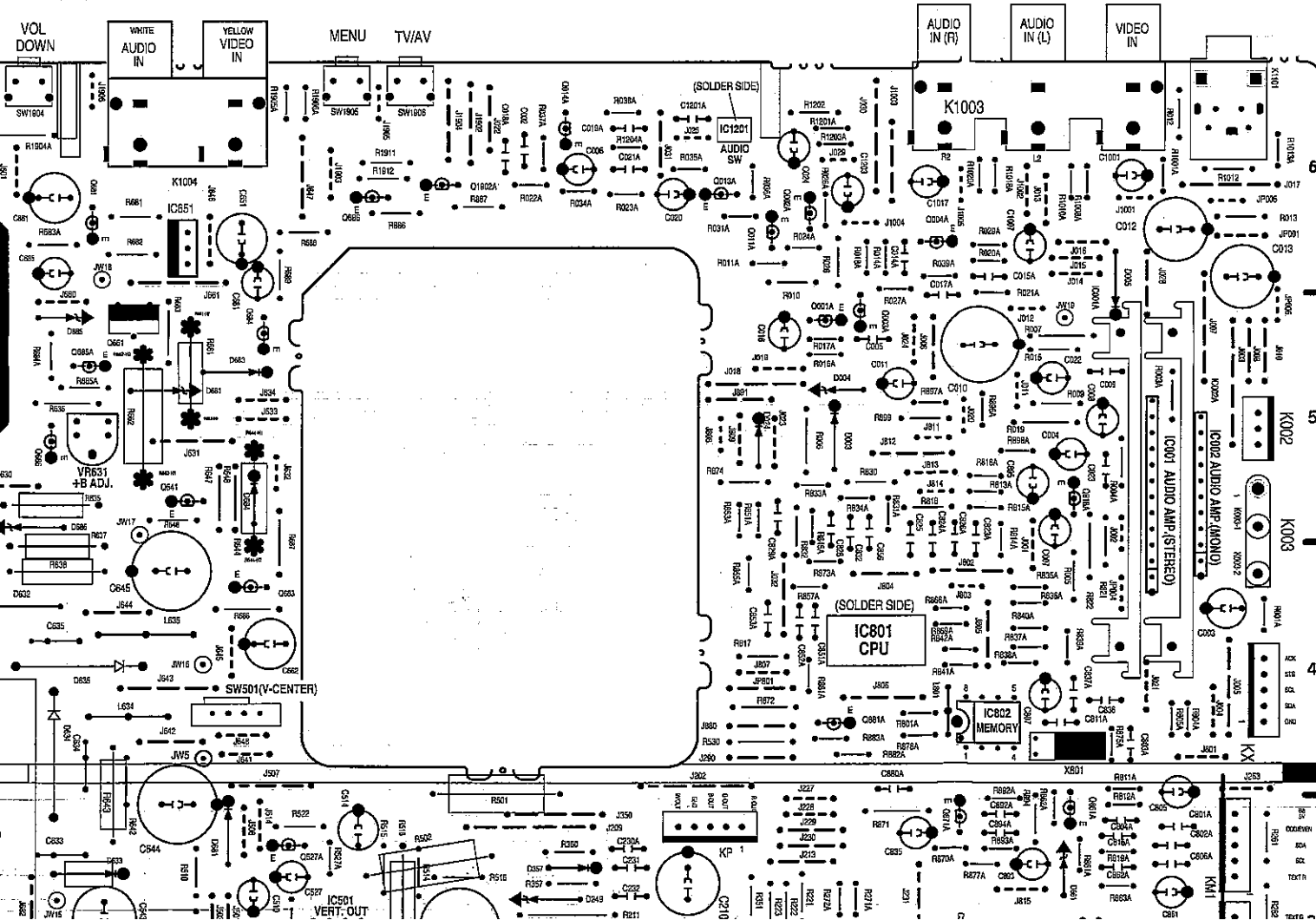
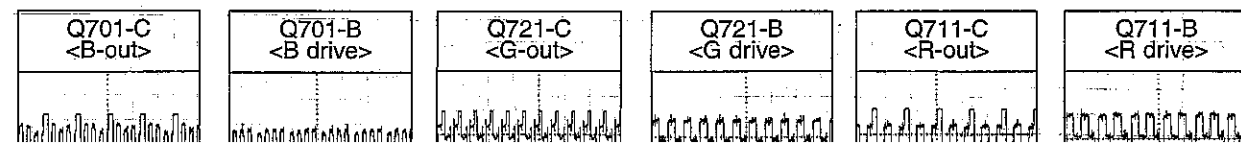
IC801 (CPU)									
Pin-1	4.3V	2	4.1V	3	5.0V	4	5.0V	5	0V
10	2.3V	11	3.4V	12	0V	13	5.0V	14	3.4V
19	0V	20	0V	21	0V	22	0V	23	5.0V
28	5.0V	29	0V	30	5.0V	31	4.9V	32	5.0V
						33	5.0V	34	0V
						35	5.0V	36	5.0V

Q111 B 1.3V C 6.0V E 0.5V	Q171 B 7.3V C 9.2V E 6.6V	Q172 B 2.2V C 7.2V E 1.6V	Q182 B 1.3V C 0V E 1.9V	Q1902 B 5.0V C -0.4V E 5.0V	Q261 B 2.3V C 0V E 3.0V	Q431 B 0V C 17.5V E 0V	Q432 B 2.1V C 133.7V E 2.2V	Q449 B 0.1V C 4.4V E 0V	Q527 B 0V C 4.4V E 0V	Q611 B 15.0V C 0V E 15.2V	Q612 B 0V C -0.3V E 0V	Q613 B -0.3V C 314V E 0V
Q631 B 0.2V C 18.5V E 3.3V	Q661 B 16.0V C -1.0V E 14.9V	Q681 B 0V C 5.1V E 0V	Q683 B 11.6V C 11.8V E 11.8V	Q684 B 0.1V C 0V E 0V	Q685 B 0.3V C 19.0V E 0.2V	Q686 B 19.0V C 0V E 18.5V	Q861 B 4.4V C 0V E 5.0V	Q871 B -8.6V C 4.8V E 0V	Q881 B -0.4V C 4.2V E 0V	Q886 B 0.7V C 0V E 0V		



(On the CRT Board)

Q701 B 2.5V C 141V E 2.3V	Q711 B 2.5V C 141V E 2.3V	Q721 B 2.5V C 141.8V E 2.3V	Q741 B 0.7V C GND E 1.4V	Q751 B 9.3V C 0V E 9.2V
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[illegible]

(On the Main Board)

IC501 (VERT. OUT)					
Pin-1	2.9V	2	26.4V	3	1.6V

IC002 (AUDIO AMP.)					
Pin-1	N.C.	2	N.C.	3	7.1V
10	N.C.				

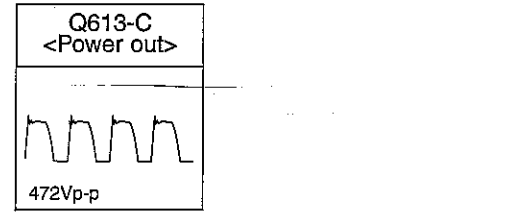
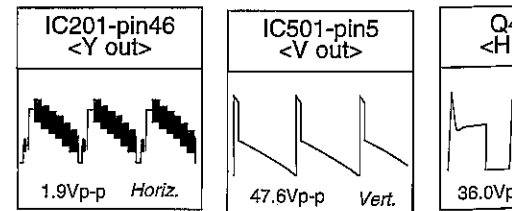
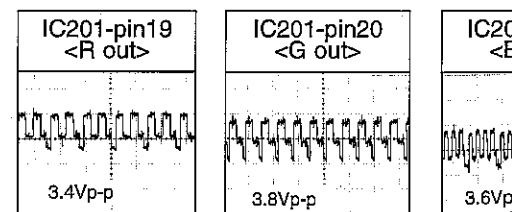
IC202				
Pin-1	7.8V	2	0V	3 5.0V

IC802 (MEMORY)					
Pin-1	GND	2	GND	3	GND

IC801 (CPU)			
Pin-1	4.3V	2	4.1V
10	2.3V	11	3.4V
19	0V	20	0V
28	5.0V	29	0V
		30	5.0V

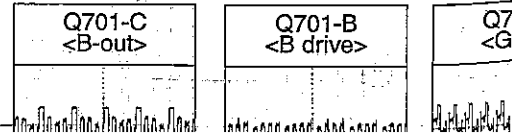
Q111 B 1.3V C 6.0V E 0.5V	Q171 B 7.3V C 9.2V E 6.6V	Q172 B 2.2V C 7.2V E 1.6V	Q182 B 1.3V C 0V E 1.9V	Q191 B 5.0V C 0.0V E 5.0V
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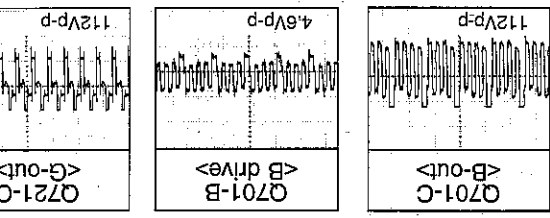
Q631	Q661	Q681	Q683	Q685
B 0.2V	B 16.0V	B 0V	B 11.6V	B 0V
C 18.5V	C -1.0V	C 5.1V	C 11.8V	C 11.8V
E 3.3V	E 14.9V	E 0V	E 11.8V	E 11.8V



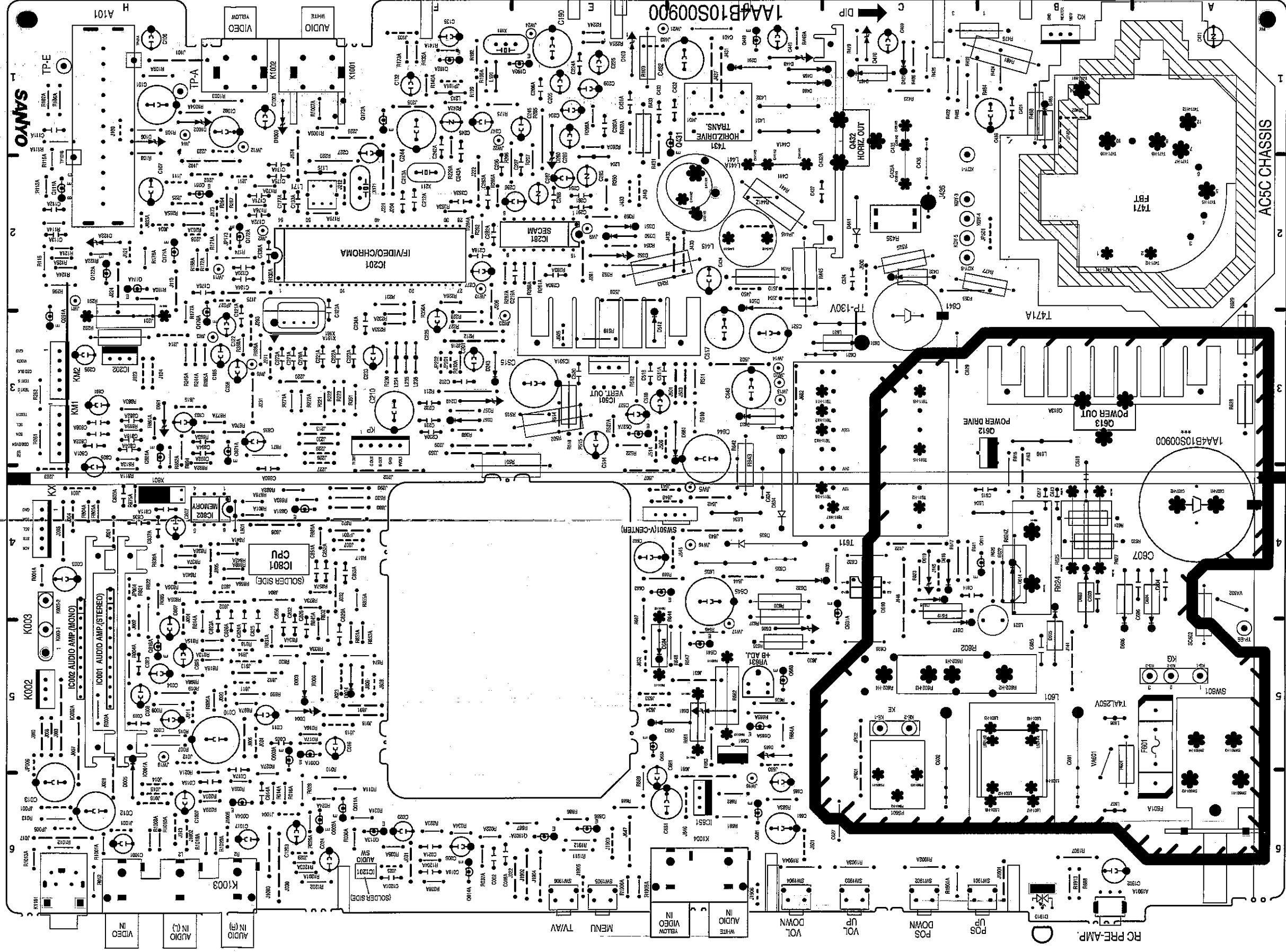
(On the CRT Board)

Q701	Q711	Q721	Q741	Q75
B 2.5V	B 2.5V	B 2.5V	B 0.7V	B 9.3
C 141V	C 141V	C 141.8V	C GND	C 0
E 2.3V	E 2.3V	E 2.3V	E 1.4V	E 9.2





MAIN BOARD (Component Location)

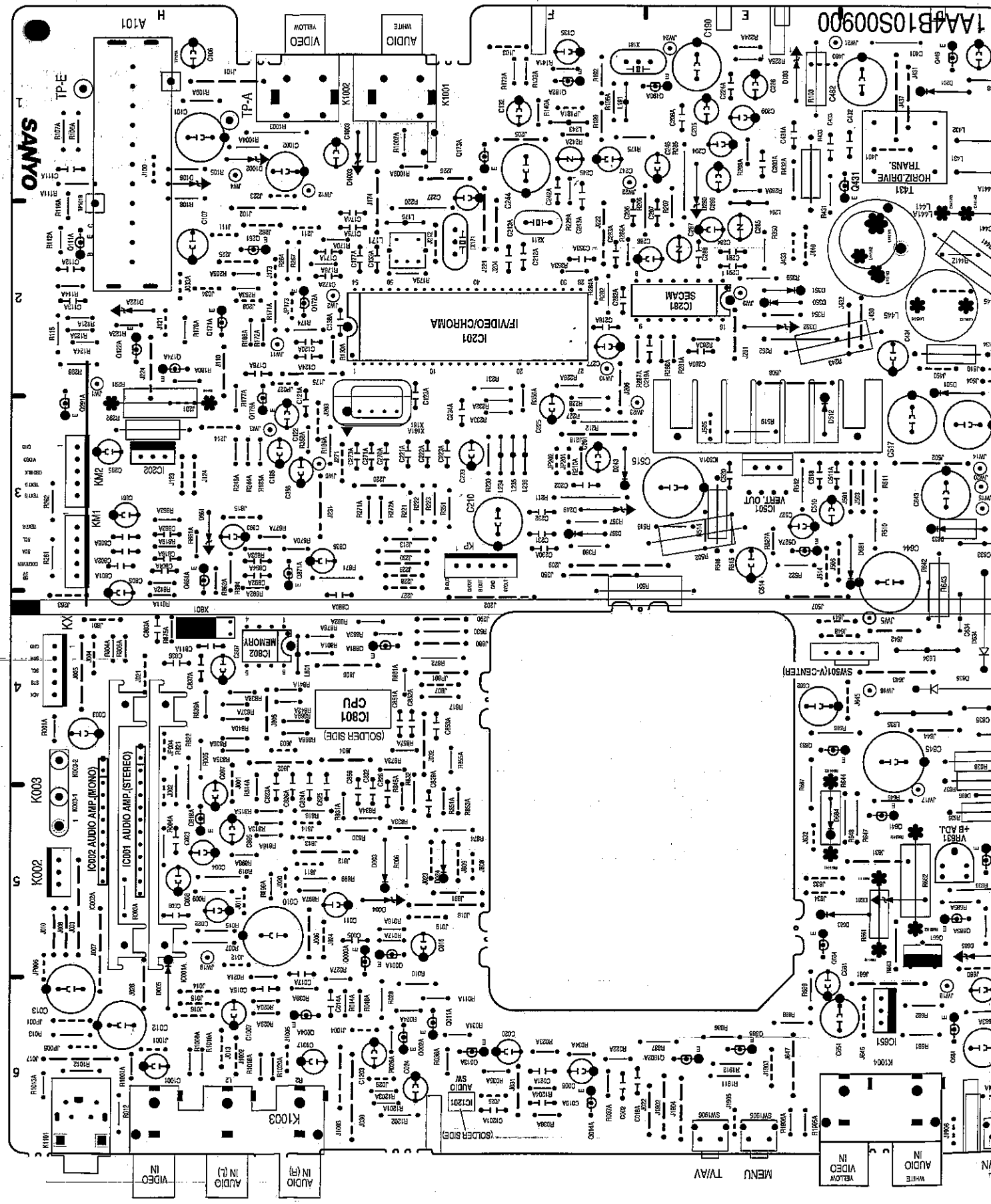


Q613	B -0.3V	E 0V
Q612	B 0V	E 0V
Q611	B 15.0V	E 15.2V
Q627	B 0.4V	E 0V
Q449	B 0.1V	E 0V
Q432	B 2.1V	E 2.2V
Q431	B 0V	E 0V
Q261	B 2.3V	E 3.0V
Q1902	B 5.0V	E 5.0V
Q182	B 1.3V	E 1.9V
Q172	B 2.2V	E 1.6V
Q171	B 7.3V	E 6.6V
Q661	B 18.5V	E 14.9V
Q681	B 0V	E 0V
Q683	B 11.6V	E 11.8V
Q684	B 0.1V	E 0V
Q685	B 0.3V	E 0.2V
Q686	B 19.0V	E 18.5V
Q686	B 0V	E 0V
Q686	B 4.4V	E 5.0V
Q681	B -8.6V	E 0V
Q681	B -0.4V	E 0V
Q686	B 0.7V	E 0V

IC201-pin19	<R out>	3.4Vp-p	IC201-pin20	<G out>	3.8Vp-p	IC201-pin21	<B out>	3.6Vp-p	IC201-pin23	<V drive>	1.0Vp-p	IC201-pin27	<H drive>	1.8Vp-p	IC201-pin28	<Sandcastle>	4.6Vp-p	IC201-pin44	<CVBS int.>	0.8Vp-p	Q613-B	<Power drive>	2.4Vp-p	Q612-C	<Power drive>	3.0Vp-p	Q432-C	<H out>	992Vp-p	Q432-B	<H out>	17.0Vp-p	Q431-C	<H drive>	36.0Vp-p	IC501-pin5	<V out>	47.5Vp-p	IC201-pin46	<Y out>	1.9Vp-p	Q613-C	<Power out>	472Vp-p
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(On the CRT Board)

Q701	B 2.5V	E 2.3V
Q711	B 14.1V	E 2.3V
Q721	B 2.5V	E 2.3V
Q721	B 14.18V	E 2.3V
Q741	B 0.7V	E 1.4V
Q751	B 9.3V	E 9.2V
Q701-C	<B-out>	112Vp-p
Q701-B	<B drive>	4.6Vp-p
Q721-C	<G-out>	112Vp-p
Q721-B	<G drive>	4.6Vp-p
Q711-C	<R-out>	101Vp-p
Q711-B	<R drive>	4.7Vp-p



Notice

SANYO

- ☐ CORRECTION ☐ ADD INFORMATION
☐ SERVICE FLASH ☐ PRODUCTION CHANGE
☒ OTHERS ☐

FILE NO.

REVISION-1

Please add this notice to the Manuals listed below.

Category: Colour Television

Chassis Series: AC5-C

Model: CP21SW1Z

Effective from : Service Ref. No. CP21SW1Z-10

Destination: Australia

REF : No. SM5110358

Issue Date: June, 2002

Give complete "SERVICE REF. No." for parts order or servicing. It is shown on the rating plate at the cabinet back of the unit.

Refer to CP21SW1Z-00 (SM5110358, issue date-June, 2002) Service Manual for all the item not given in this notice.

Differences

1. Destination

New Zealand (Service Ref. No. CP21SW1Z-10)

2. CABINET PARTS LIST

		Service Ref. No. CP21SW1Z-00		Service Ref. No. CP21SW1Z-10	
Page	Key No.	Part No.	Description	Part No.	Description
P17	7.	610 299 7774	LABEL RATING-F8VK	610 304 9755	LABEL RATING-F8VL

FILE WITH ORIGINAL SERVICE MANUAL.

Product Code: 111350809

REFERENCE NO. SM5110358-01

A14800 Nov./02/30 BB

F8VL

SANYO Electric Co., Ltd.
Printed in Japan